PATENT ABSTRACTS OF JAPAN

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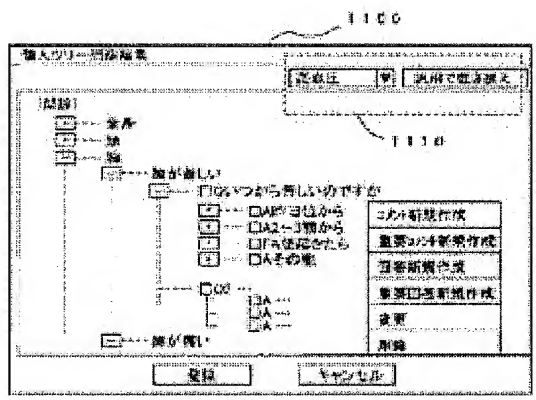
(54) METHOD FOR MEDICAL EXAMINATION BY INTERVIEW

(57)Abstract:
PROBLEM TO BE SOLVED: To provide a method for medical examination by interview capable of executing medical examination by interview suitable for a patient.
SOLUTION: This method comprises a process for receiving a signal associated with the state of a patient transmitted from the patient side terminal through a communication line, a process for selecting questions for the medical examination by interview of the patient from data stored in a storage device based on the signal associated with the state of the patient, a process for transmitting the information associated with the selected questions, a process for receiving the answers of the patient to the questions from the terminal, and a process for recording information associated with the answer. The data stored in the storage device are constituted of first data having general questions and second data having the questions for each patient, and the second data is prepared by a process for inputting a signal for selecting one patient from a plurality of patients, a process for displaying the question contents of the first data on a picture, a process for displaying the picture for editing the question contents of the first data, and a process for storing the patient and the edited questions by associating them with each other.



CLAIMS

[Claim(s)]

[Claim 1]A process of receiving a signal about a condition of a patient who is the oral consultation method which gives an oral consultation to a patient via a communication line, and was transmitted from a terminal by the side of a patient, A process of choosing a question for this patient's oral consultation from data memorized by memory storage based on a signal about this patient's condition, A process of transmitting information about a this selected question to this terminal, and a process of receiving a reply of this patient to this question from this terminal, Data which has the process of recording information about this reply, and is memorized by this memory storage, Have the 1st data that has a general-purpose question, and the 2nd data that has a question for every patient, and this 2nd data, A process as which a signal for choosing a patient of 1 from two or more patients is inputted, a process of displaying the contents of the question of this 1st data on a screen, and a process of displaying a screen into which the contents of the question of this 1st data are edited -- this -- an oral consultation method using a communication line being the data created by process of associating and memorizing a question this edited with a patient of 1.

[Claim 2]A process of setting up an inputted item by the side of a terminal in an oral consultation method according to claim 1, An oral consultation method using a communication line having further the process of receiving a signal about a condition of said patient about a process of transmitting a signal about this set-up item to a terminal by the side of said patient, and an item edited from a terminal by the side of said patient.

[Claim 3]An oral consultation method using a communication line characterized by comprising the following.

A process of being the oral consultation method which gives an oral consultation to a patient via a communication line, and receiving a signal about a condition of a patient transmitted from a terminal by the side of a patient.

A process of choosing a question for this patient's oral consultation from data memorized by memory storage based on a signal about this patient's condition.

A process of transmitting information about a this selected question to this terminal.

A process of having a process of receiving a reply of this patient to this question from this terminal, and the process of recording information about this reply, and choosing a question for this patient's oral consultation, A process of judging this patient's condition based on a signal about a condition of this patient that received, and a process of choosing a question for this patient's oral consultation based on this patient's condition.

[Claim 4]Data memorized by said memory storage in an oral consultation method according to claim 3 has data for every condition created by process of associating and memorizing a process as which said condition is inputted, a process of displaying a screen into which said contents of a question are edited, this condition, and a this edited question.

[Claim 5]An oral consultation method which gives an oral consultation to a patient via a communication line, comprising:
A process of receiving a signal about a patient transmitted from a terminal by the side of a patient.
A process of choosing a question for this patient's oral consultation from data memorized by memory storage based on a signal about this patient.
A process of transmitting information about a this selected question to this terminal.
A question that data which has a process of receiving a reply of this patient to this question from this terminal, and the process of recording information about this reply, and is memorized by this memory storage is general-purpose.

[Claim 6]An oral consultation method which is the oral consultation method according to claim 5, and used a communication line, wherein a question included in the 2nd data for said first medical examination has more choices than a question included in said 1st data.

DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Field of the Invention]This invention relates to the oral consultation method used by a medical field.
[0002]
[Description of the Prior Art]A medical practitioner collects existence, lifestyles, etc. of a subjective sign by oral consultation, when treating. Ways a medical practitioner performs this oral consultation instead include the oral consultation methods, such as a group medical examination and first-medical-examination reception. In particular, in the remote medical treatment field, a method of collecting the situations of the medical treatment is desired to the patient who is performing therapy and medical treatment at the house. In the oral consultation in such a remote medical treatment, when a patient pushes a selection button and answers to the question displayed on the screen, a patient's condition is checked.
[0003]
[Problem to be solved by the invention]However, in a Prior art, since the question currently prepared beforehand was only shown to the patient, the question suitable for a patient was not necessarily carried out.For example, since there are a gravity of condition, etc. for every patient, the optimal questions to a patient differ for every patient. And it is desirable to be able to set up a question for every patient, if the patient is patients with chronic diseases, for example. As for the burden which will be placed on setting out of a question on the other hand if a question is set up for every patient, lessening if possible is preferred. Responding sick for example, the optimal questions to a patient differ. Therefore, it is preferred that a question can be set up for every condition. The questions to a patient differ by the case where they are a case where a patient is the first medical examination, and followup.
[0004]Then, an object of this invention is to provide the oral consultation method that the

question for which it was suitable can be performed, to a patient.

[0005]

[Means for solving problem]The process of receiving the signal about the condition of the patient who main invention for attaining the above-mentioned purpose is the oral consultation method which gives an oral consultation to a patient via a communication line, and was transmitted from the terminal by the side of a patient, The process of choosing the question for this patient's oral consultation from the data memorized by memory storage based on the signal about this patient's condition, The process of transmitting the information about the this selected question to this terminal, and the process of receiving a reply of this patient to this question from this terminal, The data which has the process of recording the information about this reply, and is memorized by this memory storage, Have the 1st data that has a general-purpose question, and the 2nd data that has a question for every patient, and this 2nd data, The process as which the signal for choosing the patient of 1 from two or more patients is inputted, the process of displaying the contents of the question of this 1st data on a screen, and the process of displaying the screen into which the contents of the question of this 1st data are edited -- this -- it is characterized by being the data created by the process of associating and memorizing the question this edited with the patient of 1.

[0006]Other main invention for attaining the above-mentioned purpose, The process of receiving the signal about the condition of the patient who is the oral consultation method which gives an oral consultation to a patient via a communication line, and was transmitted from the terminal by the side of a patient, The process of choosing the question for this patient's oral consultation from the data memorized by memory storage based on the signal about this patient's condition, The process of transmitting the information about the this selected question to this terminal, and the process of receiving a reply of this patient to this question from this terminal, The process of having the process of recording the information about this reply, and choosing the question for this patient's oral consultation has the process of judging this patient's condition, and the process of choosing the question for this patient's oral consultation based on this patient's condition, based on the signal about the condition of this patient that received.

[0007]Other main invention for attaining the above-mentioned purpose, The process of receiving the signal about the patient who is the oral consultation method which gives an oral consultation to a patient via a communication line, and was transmitted from the terminal by the side of a patient, The process of choosing the question for this patient's oral consultation from the data memorized by memory storage based on the signal about this patient, The process of transmitting the information about the this selected question to this terminal, and the process of receiving a reply of this patient to this question from this terminal, The data which has the process of recording the information about this reply, and is memorized by this memory storage, The process of having the 1st data that has a general-purpose question, and the 2nd data that has a question for the first medical examination, and choosing the question for this patient's oral consultation, Based on the signal about this patient that received, it judges whether this patient is the first medical examination, if this patient is not the first medical examination, a question will be chosen

from this 1st data, and a question will be chosen from the 2nd data for the first medical examination if this patient is the first medical examination.

[0008]

[Mode for carrying out the invention]By the description of a <outline of indication> book Description, and an accompanying drawing, the following matters become clear at least.

[0009]The process of receiving the signal about the condition of the patient who is the oral consultation method which gives an oral consultation to a patient via a communication line, and was transmitted from the terminal by the side of a patient, The process of choosing the question for this patient's oral consultation from the data memorized by memory storage based on the signal about this patient's condition, The process of transmitting the information about the this selected question to this terminal, and the process of receiving a reply of this patient to this question from this terminal, The data which has the process of recording the information about this reply, and is memorized by this memory storage, Have the 1st data that has a general-purpose question, and the 2nd data that has a question for every patient, and this 2nd data, The process as which the signal for choosing the patient of 1 from two or more patients is inputted, the process of displaying the contents of the question of this 1st data on a screen, and the process of displaying the screen into which the contents of the question of this 1st data are edited -- this -- the oral consultation method using the communication line being the data created by the process of associating and memorizing the question this edited with the patient of 1.

[0010]Since it becomes unnecessary to input the contents of oral consultation from the beginning according to such an oral consultation method when editing the contents of the oral consultation for every patient, setting out of the contents of oral consultation for every patient becomes simple. In this oral consultation method, it is desirable to have further the process of receiving the signal about the condition of said patient about the process of setting up the inputted item by the side of a terminal, the process of transmitting the signal about this set-up item to the terminal by the side of said patient, and the item edited from the terminal by the side of said patient. According to such an oral consultation method, the item which a patient should input can be set up and the information about the item can be acquired.

[0011]The process of receiving the signal about the condition of the patient who is the oral consultation method which gives an oral consultation to a patient via a communication line, and was transmitted from the terminal by the side of a patient, The process of choosing the question for this patient's oral consultation from the data memorized by memory storage based on the signal about this patient's condition, The process of transmitting the information about the this selected question to this terminal, and the process of receiving a reply of this patient to this question from this terminal, The process of having the process of recording the information about this reply, and choosing the question for this patient's oral consultation, The oral consultation method using the communication line having the process of judging this patient's condition, and the process of choosing the question for this patient's oral consultation based on this patient's condition, based on the signal about the condition of this patient that received.

[0012]According to such an oral consultation method, the contents of oral consultation can be chosen according to condition. The data memorized by said memory storage in this oral consultation method, It is desirable to have data for every condition created by the process of associating and memorizing the process as which said condition is inputted, the process of displaying the screen into which said contents of a question are edited, this condition, and the this edited question. According to such an oral consultation method, the contents of oral consultation can be set up for every condition.

[0013]The process of receiving the signal about the patient who is the oral consultation method which gives an oral consultation to a patient via a communication line, and was transmitted from the terminal by the side of a patient, The process of choosing the question for this patient's oral consultation from the data memorized by memory storage based on the signal about this patient, The process of transmitting the information about the this selected question to this terminal, and the process of receiving a reply of this patient to this question from this terminal, The data which has the process of recording the information about this reply, and is memorized by this memory storage, The process of having the 1st data that has a general-purpose question, and the 2nd data that has a question for the first medical examination, and choosing the question for this patient's oral consultation, The oral consultation method using the communication line judging whether this patient is the first medical examination based on the signal about this patient that received, choosing a question from this 1st data if this patient is not the first medical examination, and choosing a question from the 2nd data for the first medical examination if this patient is the first medical examination.

[0014]According to such an oral consultation method, suitable oral consultation can be performed also to the patient of the first medical examination. As for the question included in the 2nd data for said first medical examination, in this oral consultation method, it is more desirable than the question included in said 1st data for there to be many choices. According to such an oral consultation method, detailed information can be acquired from the patient of the first medical examination.

[0015]<Composition of oral consultation system> drawing 1 is a composition this schematic illustration of the remote oral consultation system concerning this invention. In the figure, this system comprises the server 100, the terminal 120, and the communication line 130.

[0016]The server 100 is installed in medical institutions, such as a hospital and a clinic, and is used for server users, such as a medical practitioner and a nurse. The server 100 is provided with the following.

Server controlling part 101.

Server input/output device 102.

Server communication apparatus 103.

The database memory storage 104, the oral consultation knowledge base storage 105, a server storage parts store, and the oral consultation knowledge base editorial department 111.

The server controlling part 101 controls the server 100. The server input/output device 102 is Interface Division with a server user, and a display, television, a printer, etc. are used for it as an

output unit, using a keyboard, a mouse, a touch panel display, etc. as an input device. The server communication apparatus 103 is for carrying out data communications via the communication line 130. The database memory storage 104 stores the data inputted by the server input/output device 102 and the data about the patient who received via the communication line 130. The oral consultation knowledge base storage 105 memorizes the oral consultation knowledge base which is data about the contents of a question for oral consultation. The server storage parts store 106 memorizes the information in a server temporarily. The oral consultation knowledge base editorial department 111 processes the oral consultation knowledge base memorized by the oral consultation knowledge base storage 105, outputs to the server input/output device 102, and edits an oral consultation knowledge base based on the information inputted into the server input/output device 102. Edit of an oral consultation knowledge base is mentioned later.

[0017]The terminal 120 is installed in a patient's house etc. and used for terminal users, such as a patient. The terminal 120 is provided with the following.

Terminal control section 121.

Terminal input and output equipment 122.

Oral consultation treating part 123.

The terminal communication apparatus 124 and the terminal storage part 125.

The terminal control section 121 controls the terminal 120. The terminal input and output equipment 122 is Interface Division with a terminal user, and a display, television, a printer, etc. are used for it as an output unit, using a keyboard, a mouse, a touch panel display, etc. as an input device. The oral consultation treating part 123 gives an oral consultation with the oral consultation knowledge base memorized by the oral consultation knowledge base storage. The terminal communication apparatus 124 is for carrying out data communications via the communication line 130. The terminal storage part 125 memorizes the information within a terminal temporarily.

[0018]As for the communication line 130, a telephone line, a dedicated line, etc. are used. For example, an ISDN circuit, a CATV circuit, etc. may be used.

[0019]Drawing 2 is an explanatory view of the oral consultation knowledge base 200 memorized by the oral consultation knowledge base storage 105. The oral consultation knowledge base 200 is provided with the following in the figure.

It has data about the contents of a question for oral consultation, and is question condition DB210.

Question reply DB230.

Condition master DB250.

[0020]Question condition DB210 comprises the condition field 211 and question ID field 212. The condition field 211 stores conditions for judging a patient's condition. Question ID field 212 stores question ID determined as a meaning to a question.

[0021]Question reply DB230 comprises question ID field 231, the question field 232, and the answer item field 233. Question ID field 231 stores question ID determined as a meaning to a

question. The question field 232 stores the contents of the question shown to a terminal user. The answer item field 233 stores a reply to a question shown to a terminal user.

[0022]Condition master DB250 comprises conditions for judging a condition of patients, such as existence of a subjective sign, and height of blood pressure.

[0023]In the oral consultation knowledge base 200, two question replies 241 and 242 exist in question condition DB210 the one question condition 221 and question reply DB230. "Blood pressure is high" is stored in the condition field 211, and "the question 01" is stored in the question conditions 221 at question ID field 212. "Every day" and "he forgets" are stored in "the question 01" at question ID field 231, and it is stored in the question reply 241 in the question field 232 at "whether medicine is taken" and said answer item field 233. [he] "Blood pressure is high" is stored in the condition field, and "the question 01" is stored in the question conditions 221 at a question ID field. "It is enough" and "it runs short" are stored in "the question 02" at question ID field 231, and it is stored in the question reply 242 in the question field 232 at "whether it is lack of sleep" and the answer item field 233. [it] The conditions 261 "blood pressure is high" and the conditions 262 "it is feverish" are stored in condition master DB250. Drawing 3 shows the oral consultation knowledge base 300 which is another example of the above-mentioned oral consultation knowledge base 200. As for the oral consultation knowledge base 300, as compared with the above-mentioned oral consultation knowledge base 200, the question conditions 321 are added to question condition DB210.

[0024]<Operation of terminal> drawing 4 is a flow chart showing operation of the terminal 120. If a terminal user turns on the terminal 120, the terminal control section 121 will initialize the terminal 120 (Step 401). Next, the terminal control section 121 connects a circuit with the server communication apparatus 103 using the terminal communication apparatus 123 (Step 402).

[0025]Next, the terminal control section 121 gives an oral consultation by the oral consultation treating part 124 using the oral consultation knowledge base stored in the oral consultation knowledge base storage 105 (Step 403). Next, the terminal control section 121 cuts a circuit with the server communication apparatus 103 connected at Step 402 using the terminal communication apparatus 123 (Step 404). Finally, the terminal control section 121 turns off the terminal 120 (Step 405). Operation of the terminal 120 is ended above.

[0026]Drawing 5 is a flow chart showing operation of the above-mentioned step 403 which gives an oral consultation.

[0027]If processing of Step 403 is started, a patient demands the input of vital data, such as blood pressure beforehand measured in a sphygmomanometer, a thermometer, etc., and body temperature, from a terminal user, and stores the terminal control section 121 in the terminal storage part 125 by making an input result into a measurement result at him (Step 501). Next, the terminal control section 121 demands the input of a patient's subjective sign from a terminal user, and stores it in the terminal storage part 125 by making an input result into a subjective sign input result (Step 502).

[0028]Next, the terminal control section 121 transmits to the server 100 using the terminal communication apparatus 123 by making into a signal the information about a patient's condition

stored in the terminal storage part 125 (Step 503). Since the signal about the question for oral consultation of a server is transmitted according to the signal about a patient's condition, the terminal control section 121 receives this signal, and stores the information about a question in the terminal storage part 125 (Step 504).

[0029]Next, the terminal control section 121 displays the contents of the question using the terminal input and output equipment 122 based on the information about the received question in order to show a patient the question for oral consultation (Step 505). The input of the reply to the displayed question is urged to the terminal control section 121 to a patient, and it stores an input result in the terminal storage part 125 as a patient's reply (Step 506).

[0030]Next, the terminal control section 121 transmits to the server 100 using the terminal communication apparatus 123 by making into a signal the information about the reply stored in the terminal storage part 125 (Step 507). Since the signal about the result of oral consultation of a server is transmitted according to the signal about a patient's reply, the terminal control section 121 receives this signal, and stores the information about the result of oral consultation in the terminal storage part 125 (Step 508).

[0031]Next, the terminal control section 121 displays the contents as a result of oral consultation using the terminal input and output equipment 122 based on the information about the received oral consultation result in order to show a patient the result of oral consultation (Step 509).

[0032]The terminal control section 121 may receive the signal about the question for oral consultation further from the server 100, after transmitting the reply of oral consultation. In such a case, the loop is carried out to Step 504 after Step 507.

[0033]<Operation of server> drawing 6 is a flow chart showing the operation at the time of oral consultation of the server 100. Since the signal about a patient's condition will be transmitted from a terminal if oral consultation starts in the terminal side, the server controlling part 101 receives this signal, and stores it in the server storage parts store 106 or the database memory storage 104 as information about a patient's condition (Step 601).

[0034]Next, the server controlling part 101 chooses a question for a patient's oral consultation from an oral consultation knowledge base memorized by oral consultation knowledge base storage based on a signal about a condition of a patient who received (Step 602). For example, when a normal range of a patient's blood pressure value is set to 160 − 90mmHg, the terminal control section 121 chooses a question currently prepared for a patient with a high blood pressure value, when a blood pressure value of a patient who received is over 160mmHg. When a signal showing a subjective sign "the head hurts" is received for example, a question currently prepared for a patient the head hurts is chosen. Details about selection of the contents of a question, etc. are mentioned later. And the server controlling part 101 transmits information about a selected question to a terminal (Step 603).

[0035]Since a terminal transmits a signal about a reply to a question according to a question which transmitted, the server controlling part 100 receives this signal, and stores it in the server storage parts store 106 or the database memory storage 104 as information about a reply (Step 604). Next, the server controlling part 101 chooses a result of oral consultation based on

information about a received reply (Step 605). For example, when a reply to a question "whether medicine is taken" is "not drinking", a result of oral consultation by "Take medicine perfectly" is chosen. And the server controlling part 101 transmits information about a selected oral consultation result to a terminal (Step 606).

[0036]As mentioned above, since the question shown according to a patient's condition changes, the information which realizes shortening of the operate time by the abbreviation of a redundant question, and a medical practitioner needs is collectable.

[0037]Although there are operation etc. which edit the contents of a question of an oral consultation knowledge base besides the operation at the time of oral consultation as operation of a server, this is mentioned later.

[0038]<Server side display screen> drawing 7 is an explanatory view of the list screen 700 which the server controlling part 101 shows to a server user. The list screen 700 is provided with the following in the figure.

Retrieving area 710.

Search-results display area 720.

Vital-data editing area 730.

Oral consultation editing area 740.

[0039]The retrieving area 710 is for searching a predetermined patient's data from the data about the patient remembered by the database memory storage 104. For example, it can be considered as the narrowing-down conditions for search of that it is unidentified (unread), a period, etc. The search-results display area 720 displays the outline of the data about the patient searched in the retrieving area 710. The vital-data editing area 730 is for editing general-purpose templates, such as a vital-data reference value which the terminal user who is a patient inputs in the above-mentioned step 501, according to each condition. The oral consultation editing area 740 is for editing the oral consultation knowledge base stored in the oral consultation knowledge base storage 105 according to each condition.

[0040]Drawing 8 is an explanatory view of the screen for editing general-purpose templates, such as a vital-data reference value. In the vital-data editing area 730 of drawing 7, the screen of the figure will be displayed, if "hypertension" is chosen and "edit" is directed. The edit display of a general-purpose template is provided with the following.

Reference-value setting area 810.

Graph graduation setting area 820.

Item setting area 830.

In the reference-value setting area 810, if a numerical value is inputted and registered into the minimum and maximum of "blood pressure (above)" of a setting-out item, the reference value of the blood pressure (above) to the patient of a hypertensive condition will be set up, for example. And the reference value set up here is used for judgment of elimination of the question conditions in the above-mentioned step 505. In the graph graduation setting area 820, the range of the vertical axis of the graph of the vital data mentioned later is set up. The graduation of a graph is

determined based on the numerical value of the ″minimum″ inputted in the graph graduation setting area 820, and the ″maximum″ (for example, value etc. which divided the range of the maximum by 10 from the minimum). In the item setting area 830, the item of the vital data which a patient should input is newly set up according to condition. For example, since the data about the others and the ″moisture content″ which are the blood pressure etc. which the usual patient inputs, and ″salinity″ may be needed to a hypertensive patient, a ″moisture content″ and ″salinity″ are added to the item of the vital data which a patient should input.

[0041]As mentioned above, since the reference value and item of the vital data which a patient should input are set up according to a patient's condition, the case of ″hypertension″, the case of ″diabetes mellitus″, etc. can obtain required data from a patient to each condition. Since the reference value and item of vital data can be set up for every condition, as compared with the case where the reference value and item of vital data are set up for every patient, a server user's burden is mitigable. The template for every condition created as mentioned above is memorized by the oral consultation knowledge base storage 105 or the database memory storage 104 as general-purpose data for every condition.

[0042]Drawing 9 is an explanatory view of Screen 900 for editing an oral consultation knowledge base. In the oral consultation editing area 740 of drawing 7, the figure will be displayed, if ″hypertension″ is chosen and ″edit″ is directed. The edit display of an oral consultation knowledge base makes the top the parent node 901 displayed as ″oral consultation″, and comprises a tree structure of the composition of a node and a link altogether. In the oral consultation knowledge base edit display 900, the oral consultation knowledge base memorized by the oral consultation knowledge base storage 105 is displayed by the tree structure.

[0043]In the figure, ″parts with condition″, such as the ″head″, is displayed on the primacy node 910 which is a low order node of the parent node 901. it is a low order node of a primacy node -- ″cardinal symptom″, like ″the head hurts″ is displayed on the node 911 the 2nd place. A question whether to take medicine which is a low order node of the node 911 the 2nd place and which drops ″blood pressure to the node 912 the 3rd place″ etc. is displayed. A reply of ″taking every day″ is displayed on the 4th grade node 913 lower [of the node 912 / whose] is a node the 3rd place. the 4th place is a low order node of the node 913 -- a comment of ″please come to a hospital″ is displayed on the node 914 the 5th place. In the figure, although the primacy node 910 shows only the ″head″, by clicking the node distinguishing mark 940, it can carry out non-display [of the low order node of the ″head″], and can grasp structure of an oral consultation knowledge base correctly also in a limited screen space. Even if it clicks other node distinguishing marks, it changes a display of a low order node, and un-displaying.

[0044]In the figure, if a node is specified and edit is directed, the contents of the question, the contents of the reply, etc. can be added, deleted and changed. When editing the contents, such as the question, importance, such as a question, can be decided gradually. A priority of a display can be decided when displaying the contents of the question, and the contents of the reply by deciding importance, such as a question.

[0045]Thus, an oral consultation knowledge base is displayed by a tree structure, and since edit

of a question etc. can be performed by operating a node, an oral consultation knowledge base can be updated intelligibly and simply. Since the contents of the question and the contents of the reply can be edited for every condition, to each condition, a required question can be performed and a required reply can be obtained. Since the contents of the general-purpose question and the contents of the reply can be edited for every condition, as compared with the case where the contents of the question and the contents of the reply are edited for every patient, a server user's burden is mitigable. The contents of a question for every condition created as mentioned above are memorized by the oral consultation knowledge base storage 105 as general-purpose data for every condition.

[0046]Drawing 10 is an explanatory view of Screen 1000 which displays the information about each patient. The patient information display screen 1000 is a screen displayed by specifying the patient displayed on the search-results display area 720 of drawing 7. The patient information display screen 1000 is provided with the following.

Basic information area 1010.

Graph area 1020.

Oral consultation history area 1030.

The clinical-recording area 1040 and the medication area 1050.

The basic information area 1010 is for displaying basic information, such as a patient's name. The graph area 1020 is for displaying what graph-ized the patient's vital data. The graph displayed on the graph area 1020 shows the measurement result stored in the database memory storage 104. The horizontal axis of a graph is switchable by specified periods, such as "two weeks" or "one etc. month." The vertical axis of the graph is based on the graduation set up in the graph graduation setting area 820. However, as for the vertical axis for the graph of "weight", the vertical axis is set up so that the newest data may become the middle of a vertical axis. [a history] The latest data is a right end so that intelligibly [a history], and the graph shows the graph about two or more items in piles so that intelligibly [correlation with each item]. The line of a graph with the abnormal value beyond a reference value is thickly displayed as compared with the line of other graphs. The oral consultation history area 1030 is because the history of the reply to oral consultation is displayed. In the oral consultation history area 1030, the history of a reply is displayed by a tabular format so that intelligibly [a history], and in consideration of the importance of an item, the newest answer item is displayed up. The clinical-recording area 1040 is for displaying the information about a patient's clinical recording. In the figure, if it has recovered, a recovery day will be displayed as a patient's newest name of a disease and sick onset day in the clinical-recording area 1040. The medication area 1050 is for displaying the information about the medicine with which the patient was medicated. In the figure, a medicine name, the prescribed day, and the period which the patient took are displayed in the medication area 1050.

[0047]Drawing 11 is an explanatory view of the screen for editing templates, such as a vital-data reference value for every patient. In the graph area 1020 of the patient information display screen 1000 of drawing 10, the screen of the figure will be displayed, if "edit" of graph area is directed. Although the general-purpose template according to condition was set up in the screen of

above-mentioned drawing 8, the template for every patient is set up in the screen of drawing 11. That is, in drawing 8, when the maximum and minimum of a reference value are set up, although used general-purpose, even if the preset value sets up the maximum and minimum of a reference value, for example, it is not changed to the maximum and minimum of other patients' reference value by drawing 11. The screens of drawing 11 differ in that it has the substitution area 1110 as compared with the screen of drawing 8. The substitution area 1110 is for directing to transpose the setting detail of the template for every patient to a general-purpose template. In the substitution area 1110, if the condition (a figure "hypertension") near a patient's condition is chosen from two or more condition and substitution is directed, the setting detail of the template for every patient will be transposed to the setting detail of a general-purpose template. And if the server user is required, he can edit the setting detail of a template further. Since it becomes unnecessary to input a setting detail from the beginning by this when a server user sets up the template for every patient, setting out of the template for every patient becomes simple. The template for every patient created as mentioned above is memorized by the oral consultation knowledge base storage 105 or the database memory storage 104 as data for every patient.

[0048]Drawing 12 is an explanatory view of Screen 1200 for editing the oral consultation knowledge base for every patient. In the oral consultation history area 1030 of the patient information display screen 1000 of drawing 10, the figure will be displayed, if oral consultation edit is directed. Although the general-purpose oral consultation knowledge base according to condition was edited in the screen of above-mentioned drawing 9, the oral consultation knowledge data base for every patient is edited in the screen of drawing 12. That is, in drawing 9, when the contents of a question are edited, the contents of a question after edit are used general-purpose, but by drawing 12, even if it edits the contents of a question, for example, it is not edited to other patients' contents of a question. The screens of drawing 12 differ in that it has the substitution area 1210 as compared with the screen of drawing 9. The substitution area 1210 is for directing to transpose the contents of oral consultation for every patient to the general-purpose contents of oral consultation. In the substitution area 1210, if the condition (a figure "hypertension") near a patient's condition is chosen from two or more condition and substitution is directed, the contents of oral consultation for every patient will be transposed to the general-purpose contents of oral consultation. And if the server user is required, he can edit the contents of oral consultation further. Since it becomes unnecessary to input the contents of oral consultation from the beginning by this when a server user sets up the contents of oral consultation for every patient, setting out of the contents of oral consultation for every patient becomes simple.

[0049]Drawing 13 is an explanatory view of the screen which displays the details of a patient's subjective sign in a predetermined day. In the oral consultation history area of drawing 10, the figure will be displayed, if the date currently displayed on the oral consultation history is directed.

[0050]Drawing 14 is an explanatory view of Screen 1400 for editing a patient's clinical recording. In the clinical-recording area of the patient information display screen 1000 of drawing 10, the figure will be displayed, if an addition is directed. In the clinical-recording edit display 1400, an

addition and deletion are performed and a patient's sick change can be made. In the clinical-recording edit display 1400, the name of a disease, an onset day, and a therapy situation are inputted. If it is under therapy, a recovery day cannot be inputted, but a recovery day can be inputted if it is ending with a therapy. If the directions which add an entry content are carried out, the clinical-recording detailed screen 1420 will be displayed. In the clinical-recording area of the patient information display screen 1000 of drawing 10, the clinical-recording detailed screen 1420 is displayed, even if it points to edit. In the clinical-recording detailed screen 1420, a recovery day displays an uninputted thing preferentially (higher rank), ******** displays a new thing on that into which the recovery day is inputted just at a higher rank, and an onset day displays a new thing on a higher rank about what has the same recovery day. If histories, such as illness displayed on the clinical-recording detailed screen, are chosen, the clinical-recording edit display 1440 is displayed and the contents of the selected history can be changed.

[0051]Drawing 15 is an explanatory view of Screen 1500 for editing a history of a patient's medication. In the medication area 1050 of drawing 10, the figure will be displayed, if an addition is directed. In the medication history edit display 1500, an addition and deletion are performed and a change of medicine with which a patient was medicated can be made. In the medication history edit display 1500, a medicine name, a formula day, and duration of drug exposure are inputted. If directions which add an entry content are carried out, the medication history detailed screen 1420 will be displayed. In a medication area of the patient information display screen 1000 of drawing 10, the medication history detailed screen 1520 is displayed, even if it points to edit. In the medication history detailed screen 1520, it is displayed on the basis of a date which did its business on a formula day. The medication history edit display 1540 is displayed and the contents of the selected history can be changed. The contents of a question for every patient created as mentioned above are memorized by the oral consultation knowledge base storage 105 as data for every patient.

[0052]<Terminal side display screen> drawing 16 is an explanatory view of the basic information screen 1600 which the terminal control section 121 shows to a new terminal user. The patient who is a terminal user inputs basic information according to the basic information screen 1600 about illness and drinking of the illness and the family of the illness and the past under present therapy besides the information on a date of birth, sex, a blood group, etc. (un-illustrating), the existence of no smoking, etc. When a patient inputs necessary items and directs registration, it is stored in the database memory storage 104 of the server 100 via the communication line 130. It memorizes the contents to the database memory storage 104 while publishing a password and a membership number (patient ID) to a new patient, if the server 100 is received [basic information] from a new patient. The patient can log in now to a system by inputting the password and membership number which were published.

[0053]Drawing 17 is an explanatory view of the menu screen which the terminal control section 121 shows to a terminal user, when a terminal user logs in. The patient who is a terminal user transmits his intention to the terminal control section 121 by clicking the button displayed on the menu screen.

[0054]Drawing 18 is an explanatory view of a vital-data input screen for a terminal user to input vital data, such as blood pressure, in the above-mentioned step 501. The screen of the figure is displayed that a terminal user directs a "vital-data input" in the menu screen of drawing 17. Since the information about an individual template will be transmitted from the server side if terminal user's individual's template is edited (refer to drawing 11), a vital-data input screen, The input of the addition item (at drawing 11, they are a moisture content and salinity) set as a terminal user's besides the input of a base item (drawing 8 blood pressure, a pulse, body temperature, and BMI) template is required. If the terminal user's template is not edited, the input of the addition item set as the general-purpose template (refer to drawing 8) according to the condition of chronic diseases, such as a terminal user's hypertension, will be required with the input of a base item. When neither a terminal user's template nor a general-purpose template is used, the input of a base item is required. In a vital-data input screen, a "reference value", "graduation setting out of a graph", etc. which were displayed in drawing 8 or drawing 11 are not displayed. If the data inputted in the vital-data input screen is registered, the inputted data will be stored in the terminal storage part 125 of the terminal 120, and will be transmitted to the server side.
[0055]Drawing 19 is an explanatory view of a part selection picture for the patient who is a terminal user to choose a part with condition. The screen of the figure is displayed that a terminal user directs "an oral consultation start" in the menu screen of drawing 17. A part selection picture displays a positive whole body figure and a backward whole body figure. And a line is pulled out from the predetermined part of a whole body figure, and the check box is provided with the name of the part to choose. The terminal user can pinpoint and choose a part with condition by giving a check to a check box. Selection of a part is not restricted to selection by a check box, and may choose a part by directing parts, such as a head of a whole body figure, with a pointer. If the terminal user had chosen the part which had condition in the part selection picture in the past, when displaying a part selection picture, a check may be beforehand given to the check box of the same part as the part selected in the past. The display information of a part with the condition in the figure is equivalent to the contents of the primacy node at the time of displaying the oral consultation knowledge base memorized by the oral consultation knowledge base storage 105 by a tree structure (refer to drawing 9).
[0056]Drawing 20 is an explanatory view of a cardinal-symptom selection picture for the patient who is a terminal user to choose the main condition. A cardinal-symptom selection picture displays the condition in the part according to the part selected in the part selection picture. And the check box is provided beside the display of each condition. The terminal user can specify and choose the main condition by giving a check to a check box. the display of the cardinal symptom in the figure can be set when the oral consultation knowledge base memorized by the oral consultation knowledge base storage 105 is displayed by a tree structure (refer to drawing 9) -- the 2nd place is equivalent to the contents of the node.
[0057]Drawing 21 - drawing 23 are the explanatory views of the screen for giving an oral consultation to the patient who is a terminal user. the display information for the oral consultation in drawing 21 can be set when the oral consultation knowledge base memorized by the oral

consultation knowledge base storage 105 is displayed by a tree structure (refer to drawing 9) -- the 3rd place is equivalent to the contents of the node. The display information of drawing 22 - drawing 24 is a question and a reply selected along with the tree structure similarly.

[0058]A screen of drawing 19 - drawing 23 will be displayed along with a tree structure of the contents of oral consultation of an individual who edited, if terminal user's individual's contents of oral consultation are edited (refer to drawing 12). If terminal user's individual's contents of oral consultation are not edited, it will be displayed along with a tree structure of the general-purpose contents of oral consultation (refer to drawing 9) according to condition. A tree structure displayed when editing the contents of oral consultation by the server side is not displayed on a screen shown to a terminal user.

[0059]In the case of the first medical examination, since it differs from patients' with chronic diseases followup, it is common that the contents of a question to a patient, etc. differ. Therefore, as for the screen shown to a terminal user, when the patient who is a terminal user is the first medical examination, it is desirable to display the screen for the first medical examination.

[0060]Drawing 24 is an explanatory view of the subjective sign oral consultation screen for the first medical examination. The screen of the figure is displayed that a terminal user directs the "first medical examination" in the menu screen of drawing 17. However, the subjective sign oral consultation screen for the first medical examination may be displayed when a terminal user is judged to be the first medical examination. A judgment whether a terminal user is the first medical examination can be made by comparing the membership number which the data memorized by the database memory storage 104 and a terminal user input at the time of login. Although the contents of oral consultation set up for every patient or every condition were expressed as the above-mentioned oral consultation screen, since there is no information about a patient's condition in the case of the first medical examination, the detailed contents of condition are displayed and many choices for a patient to tell his condition are expressed as the subjective sign oral consultation screen for the first medical examination. Therefore, more detailed information can be acquired when a patient checks the condition which is applied with the subjective sign oral consultation screen for the first medical examination. However, if the choice showing condition increases, the detailed information on a patient's condition is acquired, but when a patient chooses his condition from choices, selection may become difficult if there are many choices. Then, a detailed condition may not be comprehensively displayed on the subjective sign oral consultation screen for the first medical examination, but it may stop at displaying the thing of an important condition.

[0061]Drawing 25 is an explanatory view of a subcondition oral consultation screen for the first medical examination. Since a choice expressing a patient's condition may not be displayed when a choice displayed in a screen of drawing 25 is limited to a thing of an important condition, it is supposed that a more detailed condition is displayed in a subcondition oral consultation screen of drawing 26. A subcondition oral consultation screen for the first medical examination is good to make it displayed, when it is registered, while a check has not been given to a check box in a subjective sign oral consultation screen for the first medical examination. Thus, detailed data of a

patient who is a terminal user can be obtained, making a terminal user's burden of selection ease by displaying a detailed condition in two steps.

[0062]Drawing 26 is an explanatory view of the condition confirmation screen of the first medical examination. The list display of the contents which answered the condition confirmation screen of the first medical examination on the subjective sign oral consultation screen for the first medical examination of drawing 25 or the subcondition oral consultation screen for the first medical examination of drawing 25 is carried out. By carrying out the list display of the condition of the patient of the first medical examination, the check of a condition selected from detailed choices becomes easy.

[0063]Since the detailed data of the patient of the first medical examination can be obtained when the patient of the first medical examination answers on the screen for the first medical examination (drawing 24, drawing 25), based on this data, the oral consultation (refer to drawing 21 - drawing 23) according to the patient's condition may be started. Even if a patient is the first medical examination, when a patient's condition can be known based on the data inputted into the basic information screen (drawing 16), it is not necessary to display the subjective sign oral consultation screen for the first medical examination.

[0064]Drawing 27 is an explanatory view of the graphical representation screen which graph-izes the history of a patient's vital data and displays it. The screen of the figure is displayed that a terminal user directs "a history check" in the menu screen of drawing 17. The graph displayed is displayed based on the measurement result memorized by the measurement result or terminal storage part stored in the database memory storage 104. The horizontal axis of a graph is switchable by specified periods, such as "two weeks" or "one etc. month." The vertical axis of the graph is based on the graduation set up in the graph graduation setting area 820 (refer to drawing 8 and drawing 11). However, as for the vertical axis for the graph of "weight", the vertical axis is set up so that the newest data may become the middle of a vertical axis. [a history] The latest data is a right end so that intelligibly [a history], and the graph shows the graph about two or more items in piles so that intelligibly [correlation with each item].

[0065]Drawing 28 is an explanatory view of the oral consultation history display screen which displays the history of oral consultation. The screen of the figure is displayed that a terminal user directs "a history check" in the menu screen of drawing 17. Or it changes from the graphical representation screen of drawing 27, and may be displayed. The history of a reply is displayed by a tabular format so that intelligibly [the history of oral consultation], and in consideration of the importance of an item, the newest answer item is expressed as an oral consultation history display screen up. If importance is gradually set as the contents of the question, or the contents of the reply, the priority of a display may be decided according to the importance.

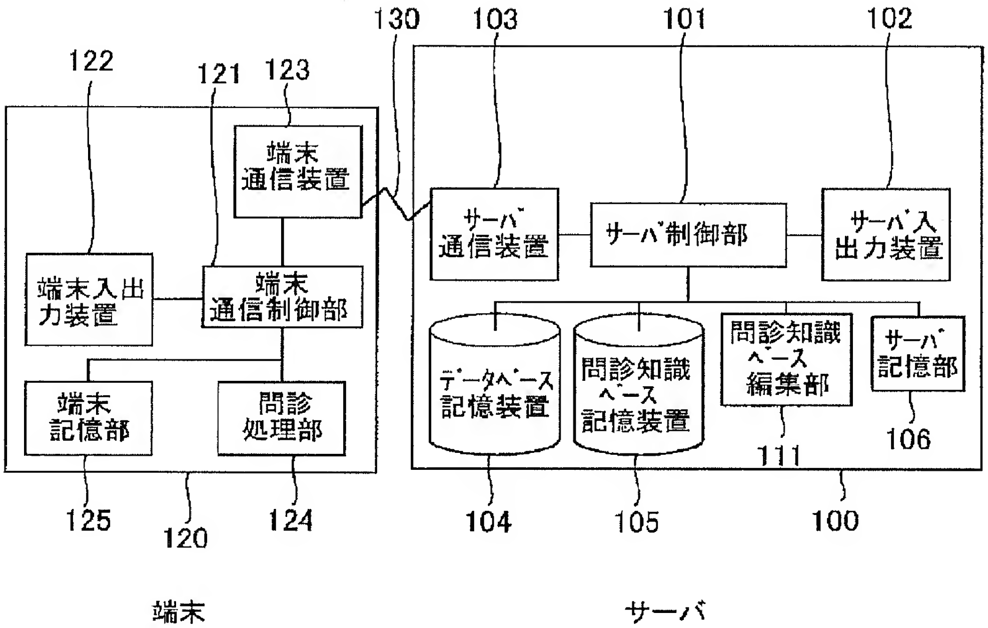
[0066]Drawing 29 is an explanatory view of a screen which displays details of a patient's subjective sign in a predetermined day. In an oral consultation history display screen of drawing 28, the figure will be displayed, if a date currently displayed on an oral consultation history is directed.

[0067]

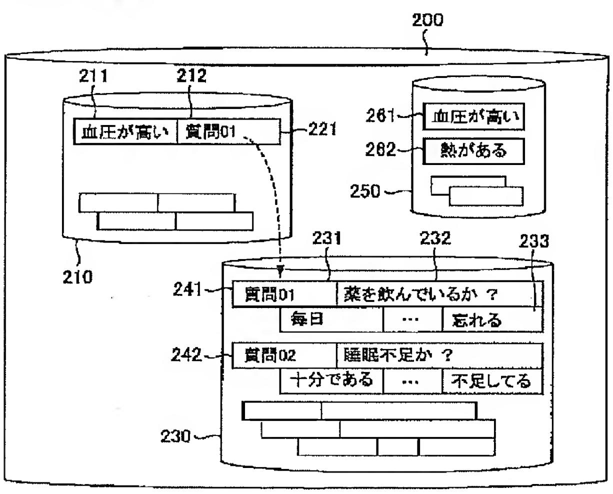
[Effect of the Invention]According to the oral consultation method of this invention, the oral consultation method that the question for which it was suitable can be performed easily can be provided to a patient.

DRAWINGS

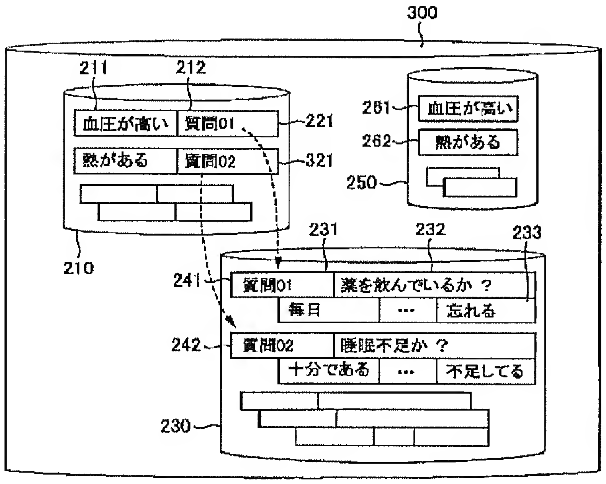
[Drawing 1]



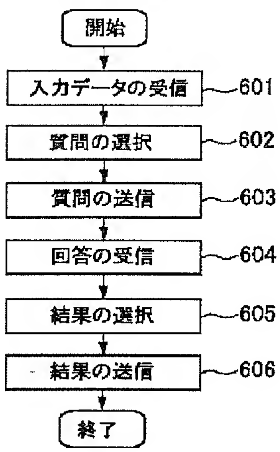
[Drawing 2]



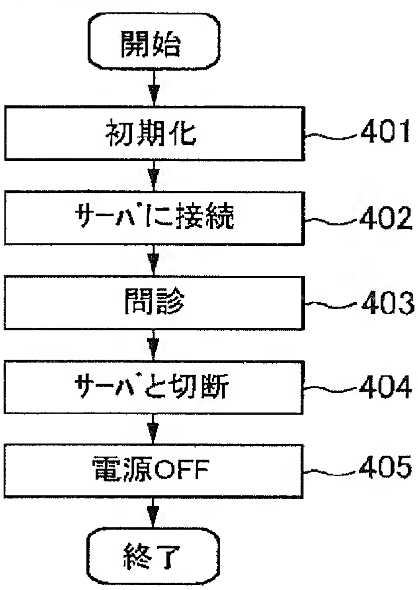
[Drawing 3]



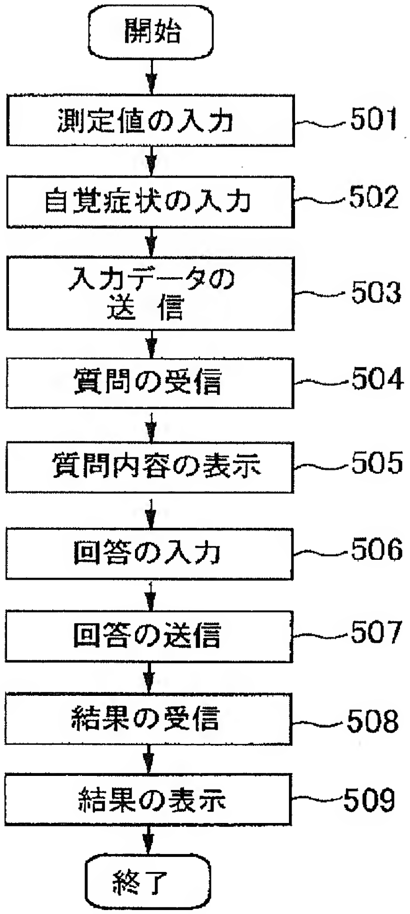
[Drawing 6]



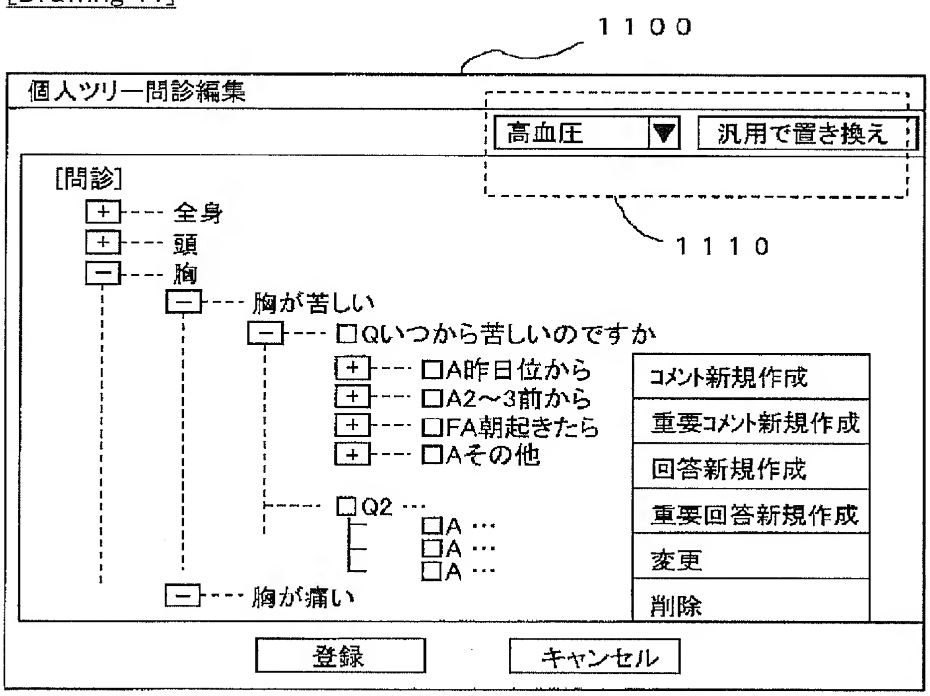
[Drawing 4]



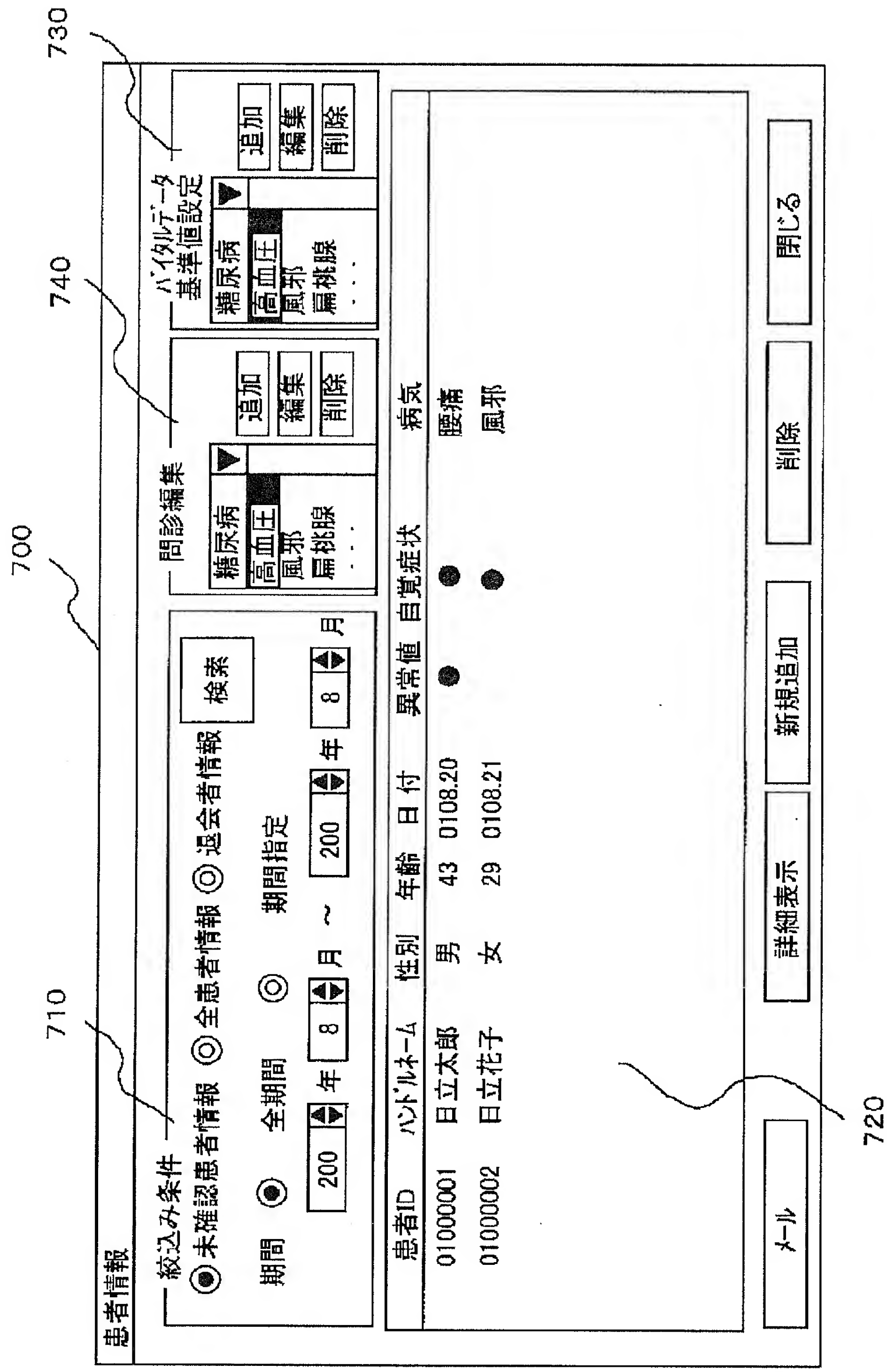
[Drawing 5]



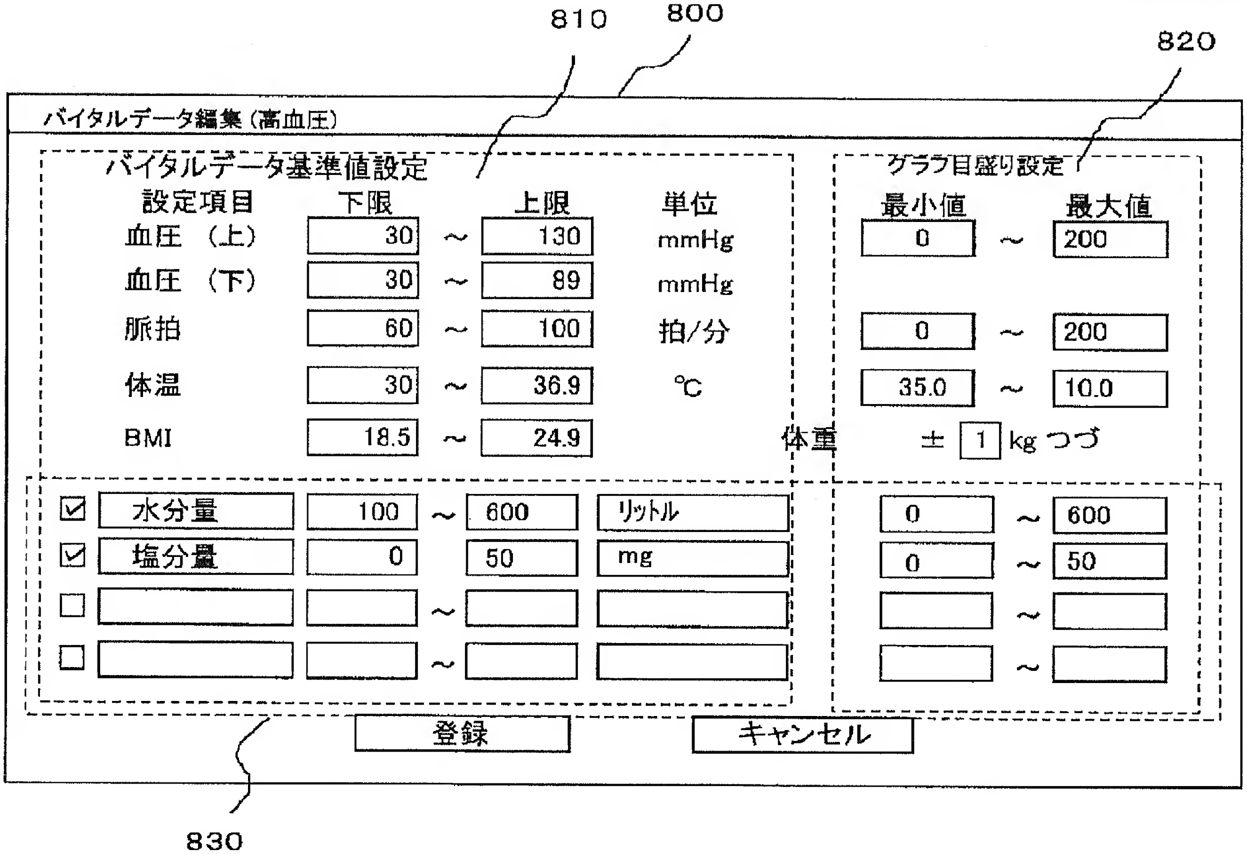
[Drawing 11]



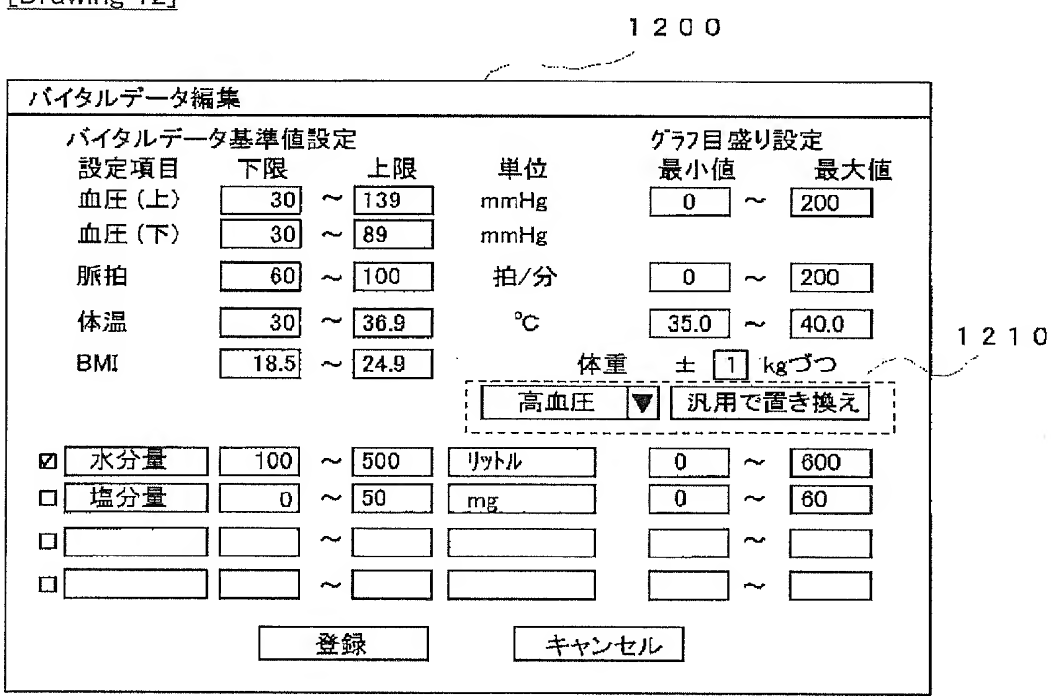
[Drawing 7]


700
710
720
730
740
患者情報
絞込み条件
未確認患者情報
全患者情報
退会者情報
期間
全期間
期間指定
200 年 8 月 ~ 200 年 8 月
検索
問診編集
糖尿病
高血圧
風邪
扁桃腺
追加
編集
削除
バイタルデータ基準値設定
患者ID ハンドルネーム 性別 年齢 日付 異常値 自覚症状 病気
01000001 日立太郎 男 43 0108.20 腰痛
01000002 日立花子 女 29 0108.21 風邪
メール
詳細表示
新規追加
削除
閉じる

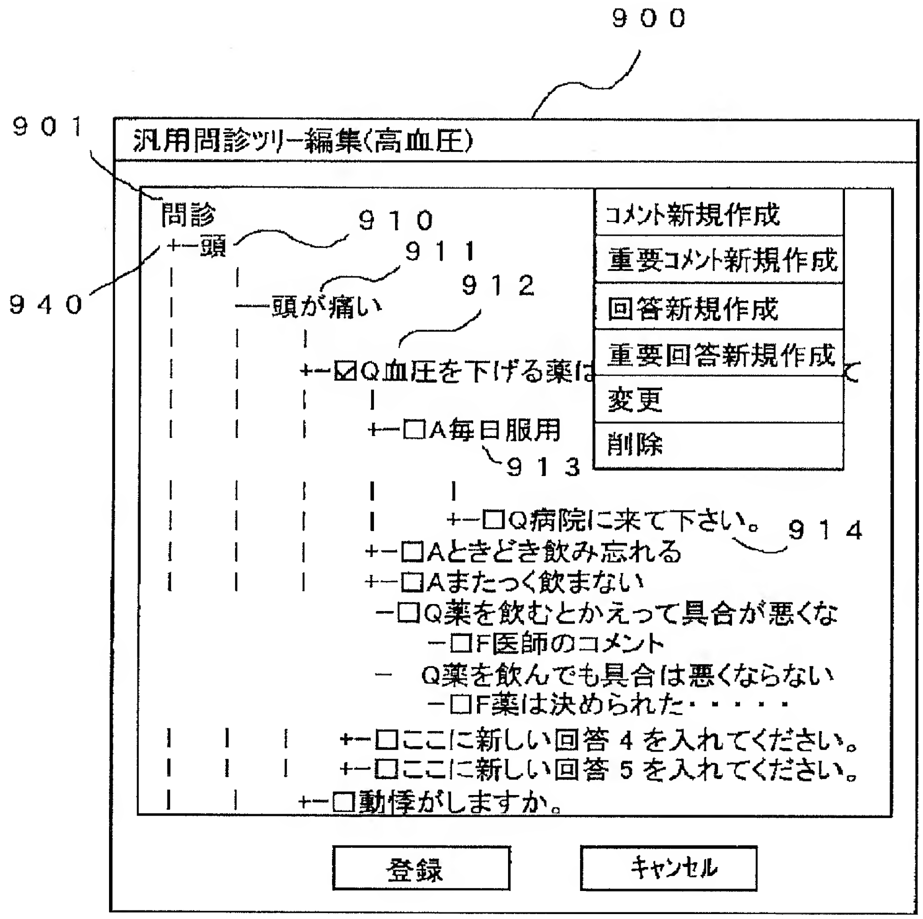
[Drawing 8]



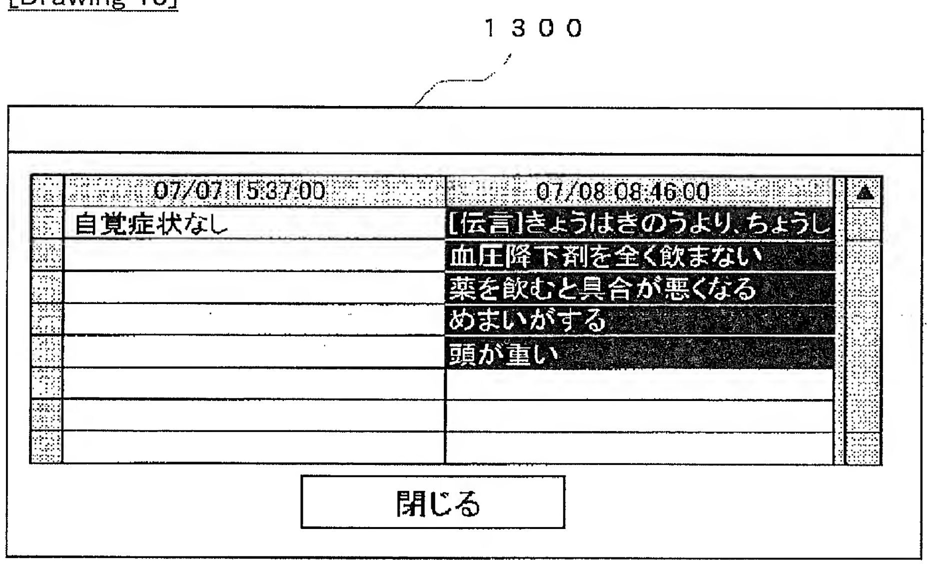
[Drawing 12]



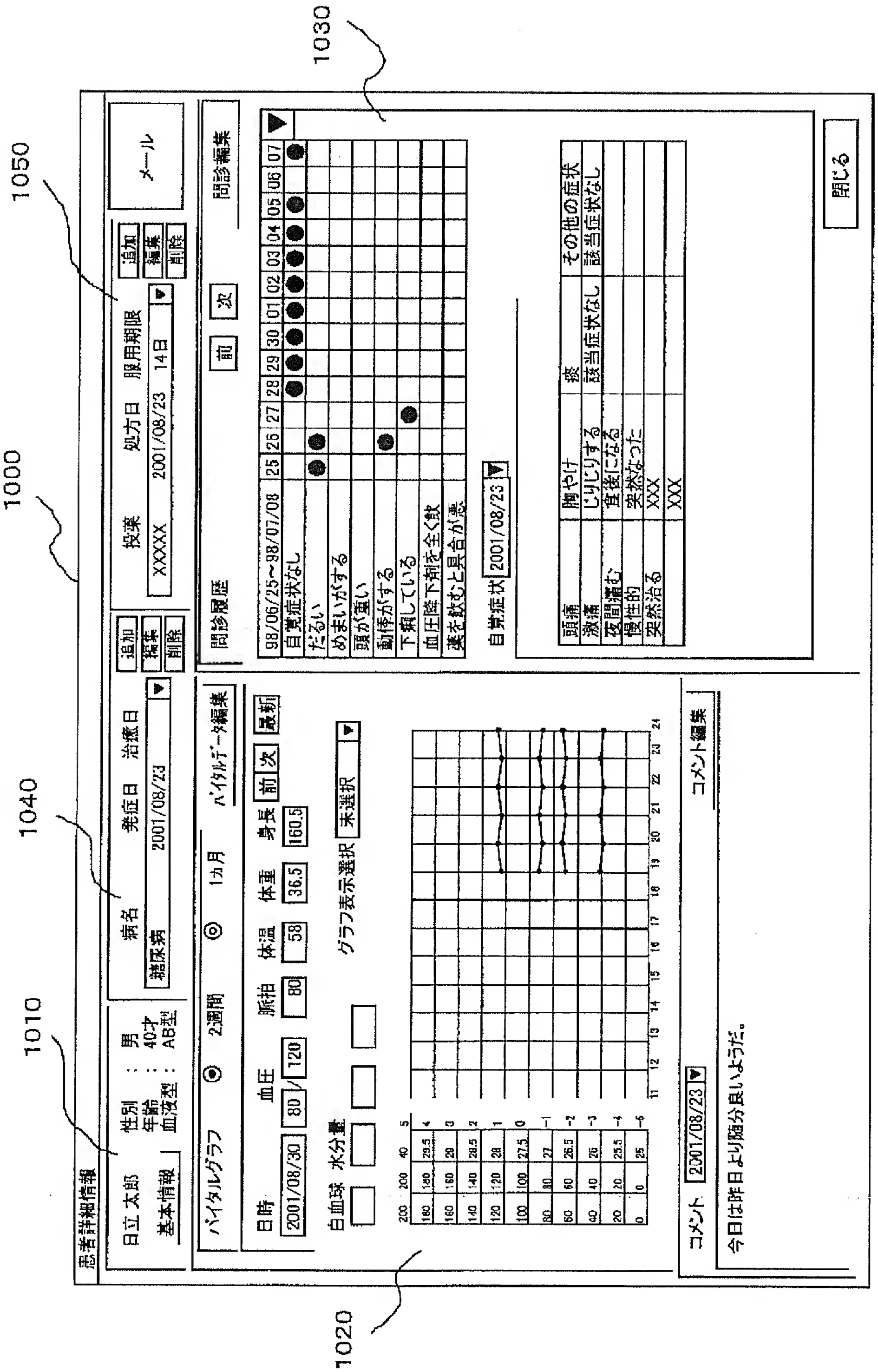
[Drawing 9]



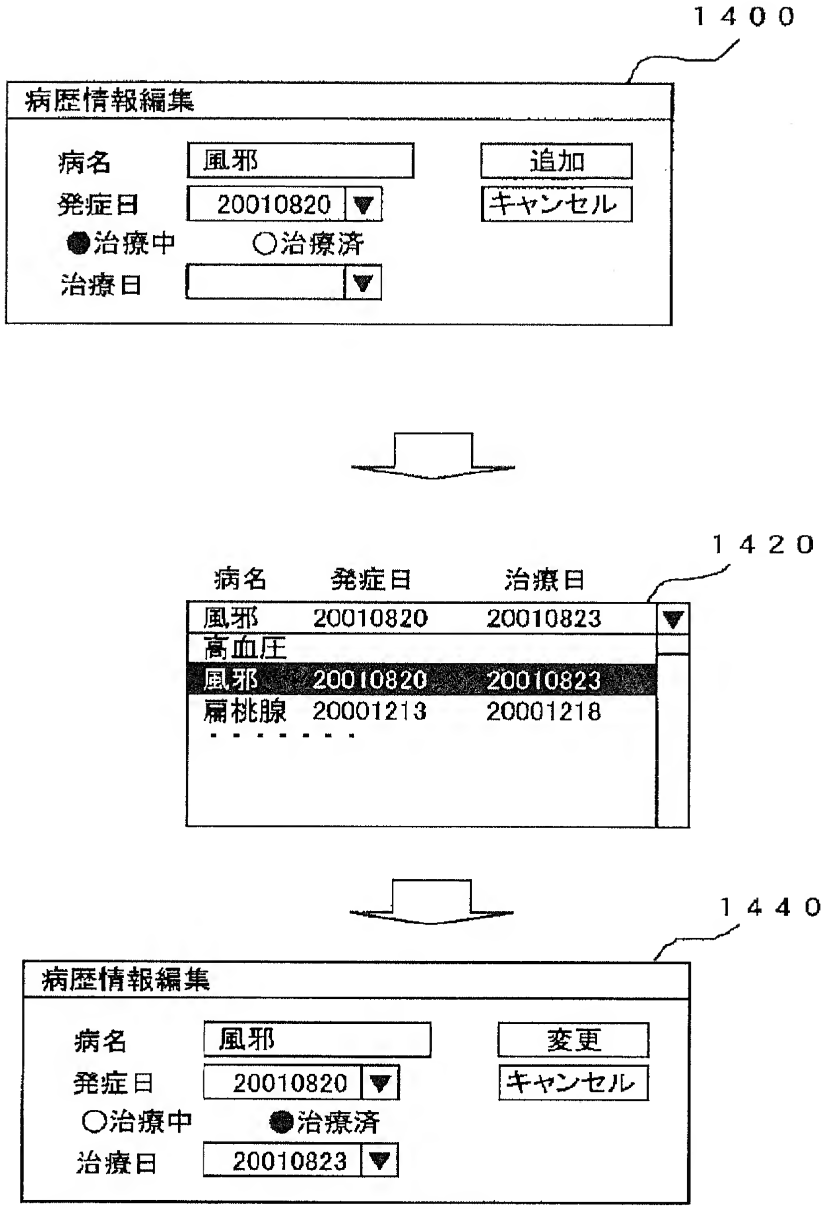
[Drawing 13]



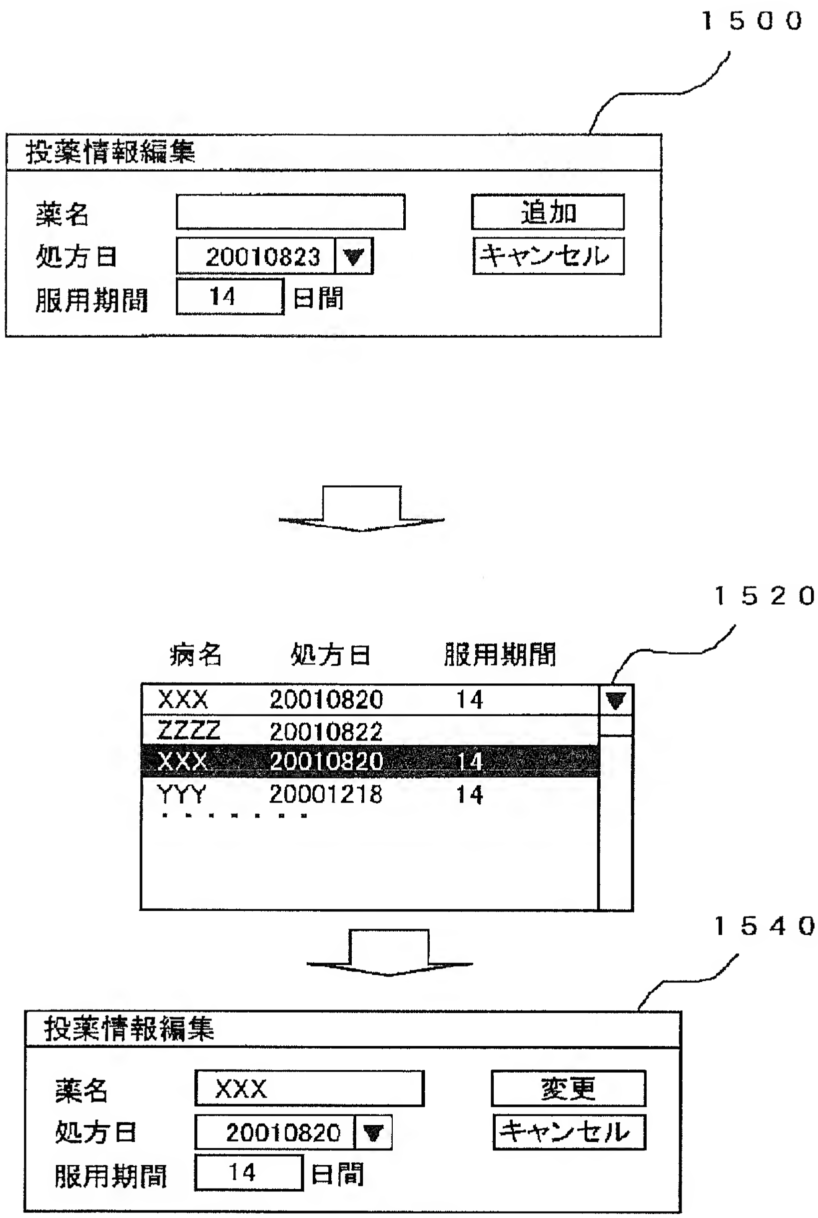
[Drawing 10]



[Drawing 14]


1400
病歴情報編集
病名
風邪
追加
発症日
20010820
キャンセル
●治療中
○治療済
治療日
1420
病名
発症日
治療日
風邪 20010820 20010823
高血圧
風邪 20010820 20010823
扁桃腺 20001213 20001218
1440
病歴情報編集
病名
風邪
変更
発症日
20010820
キャンセル
○治療中
●治療済
治療日
20010823

[Drawing 15]


1500
投薬情報編集
薬名
追加
処方日
20010823
キャンセル
服用期間
14
日間
1520
病名
処方日
服用期間
XXX 20010820 14
ZZZZ 20010822
XXX 20010820 14
YYY 20001218 14
1540
投薬情報編集
薬名
XXX
変更
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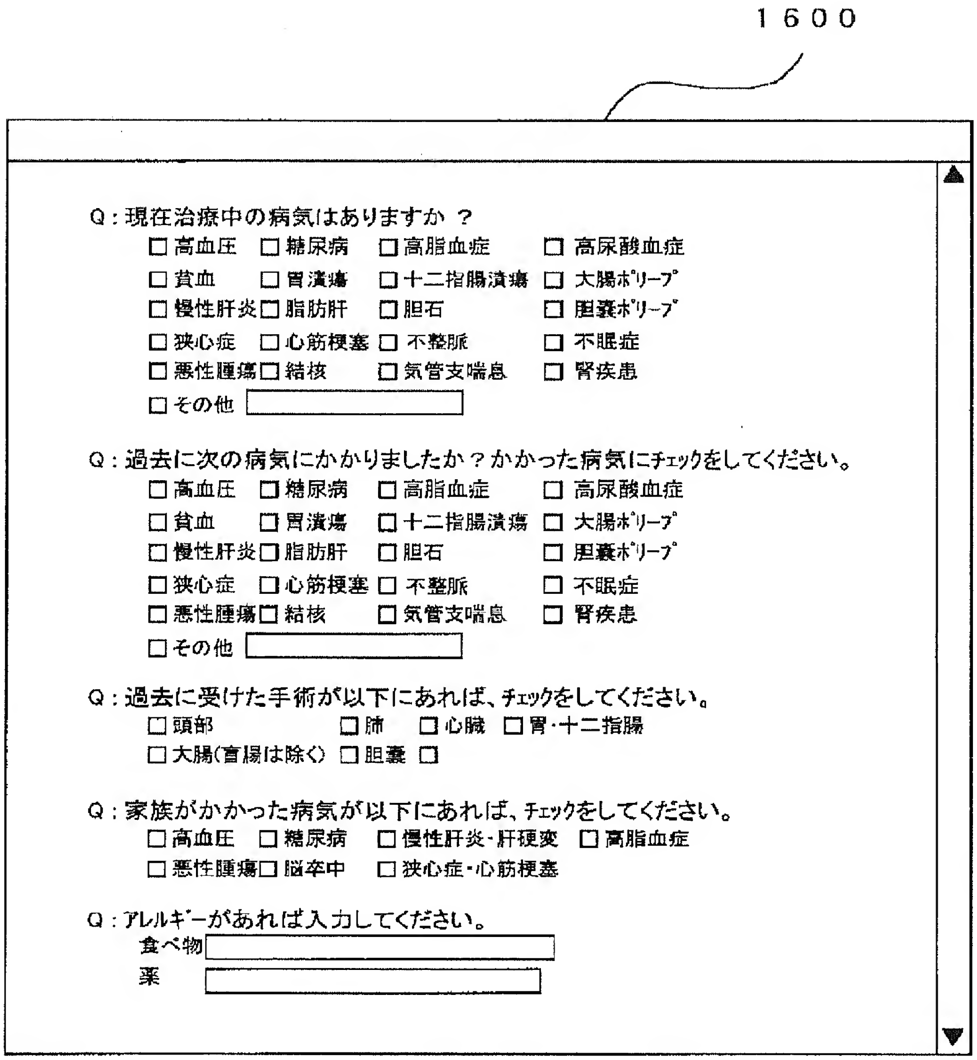
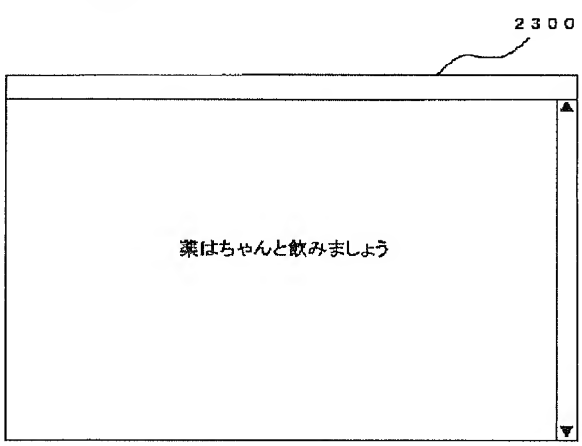
20010820
キャンセル
服用期間
14
日間

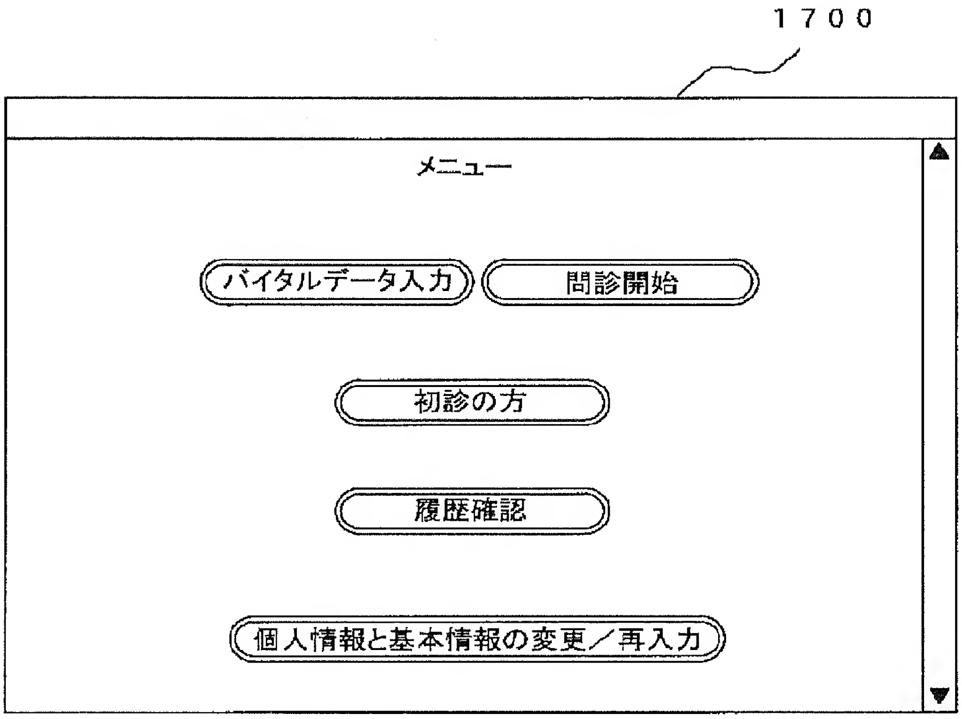
[Drawing 16]



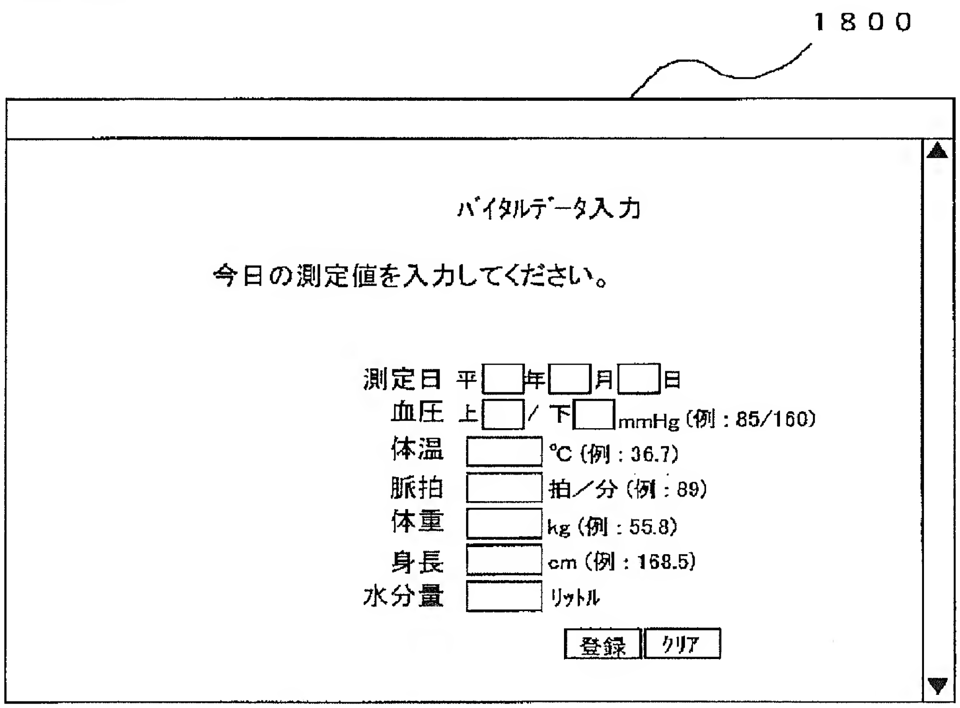
[Drawing 23]



[Drawing 17]

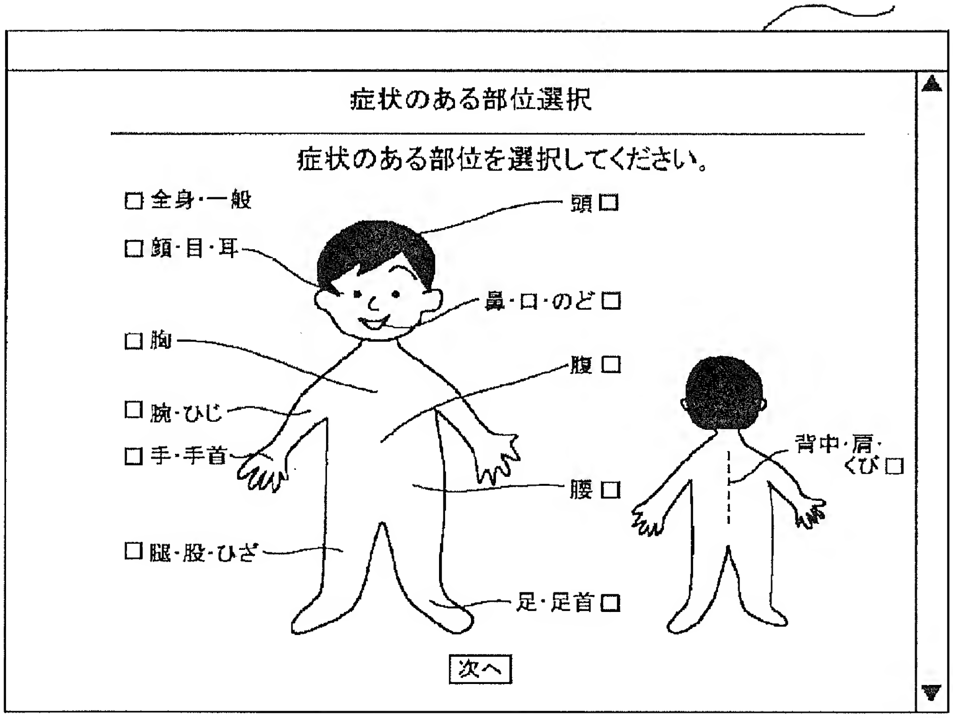


[Drawing 18]



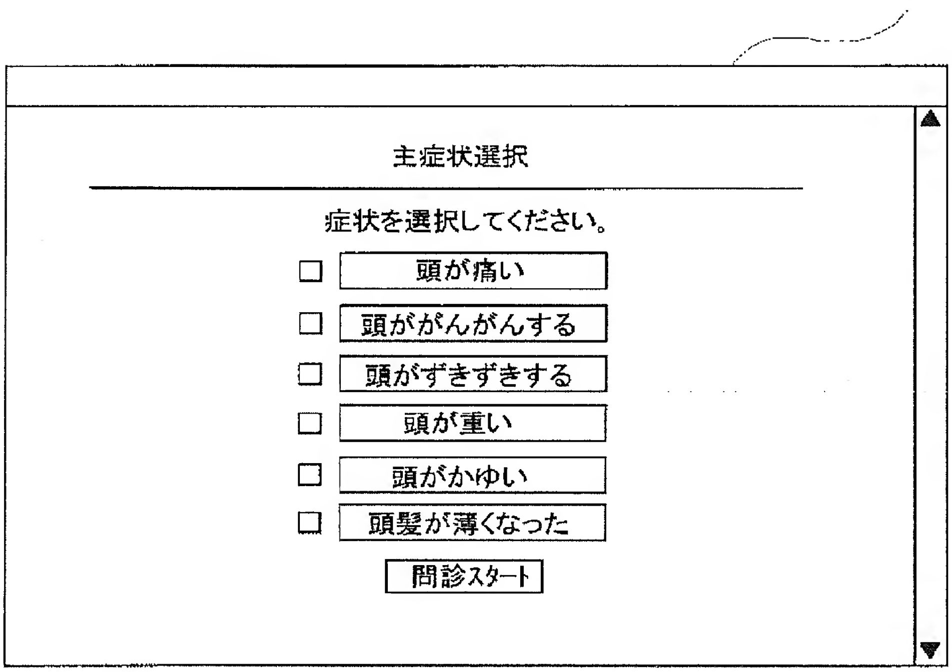
[Drawing 19]

1900

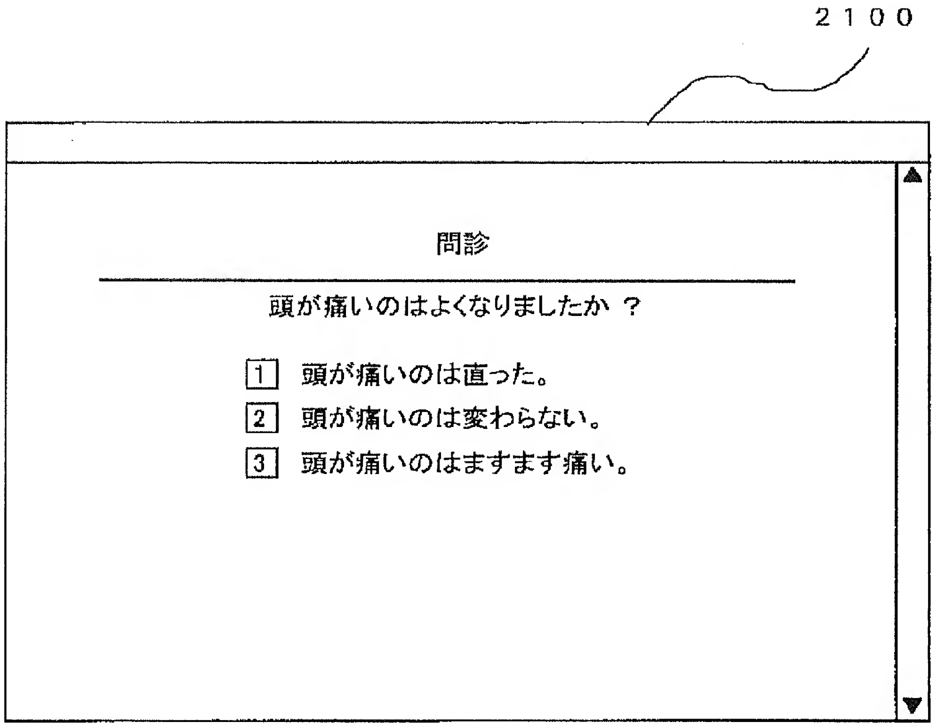


[Drawing 20]

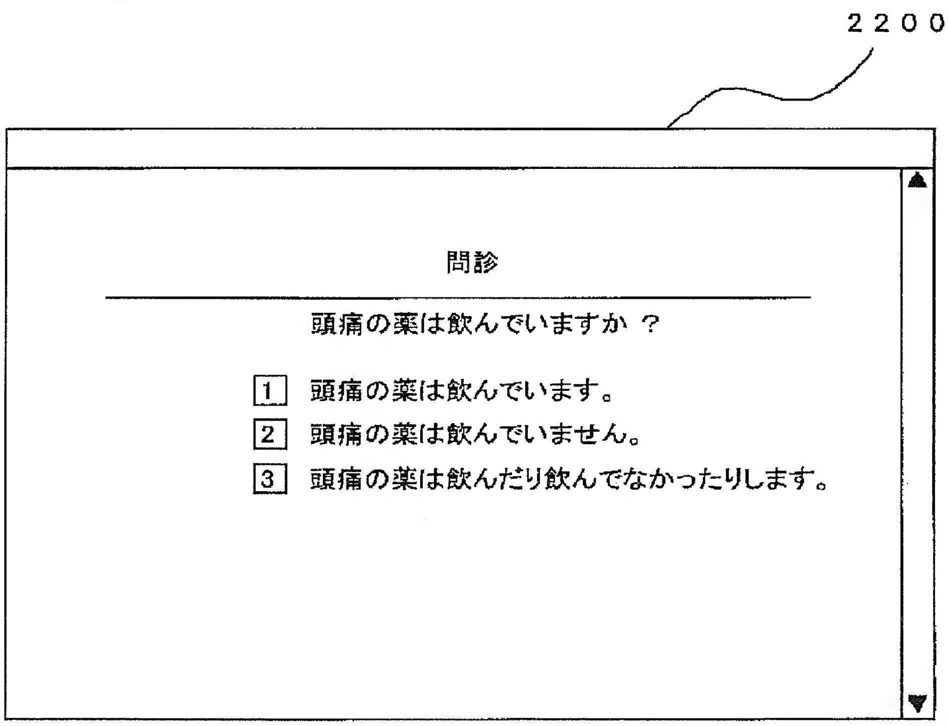
2000



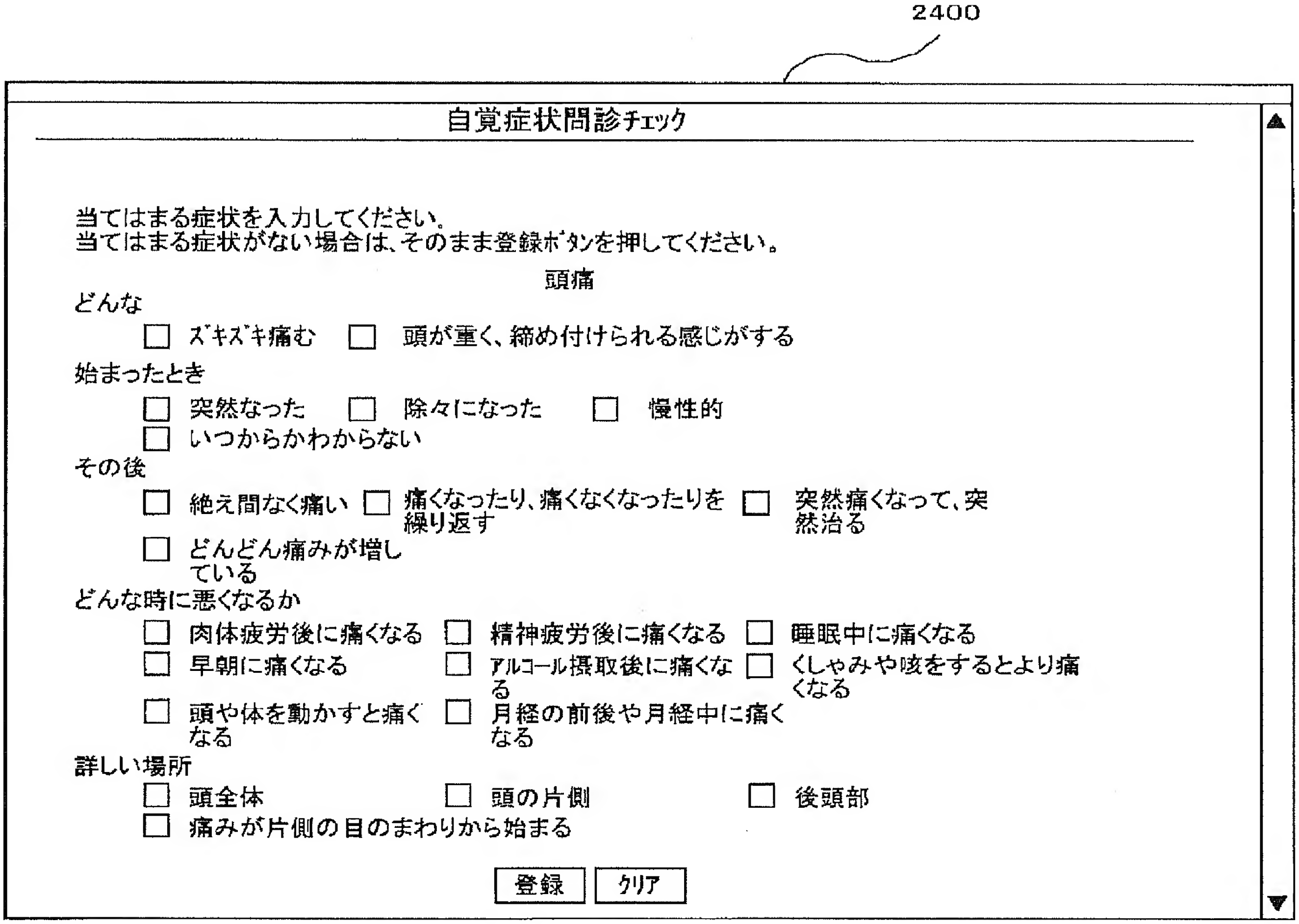
[Drawing 21]



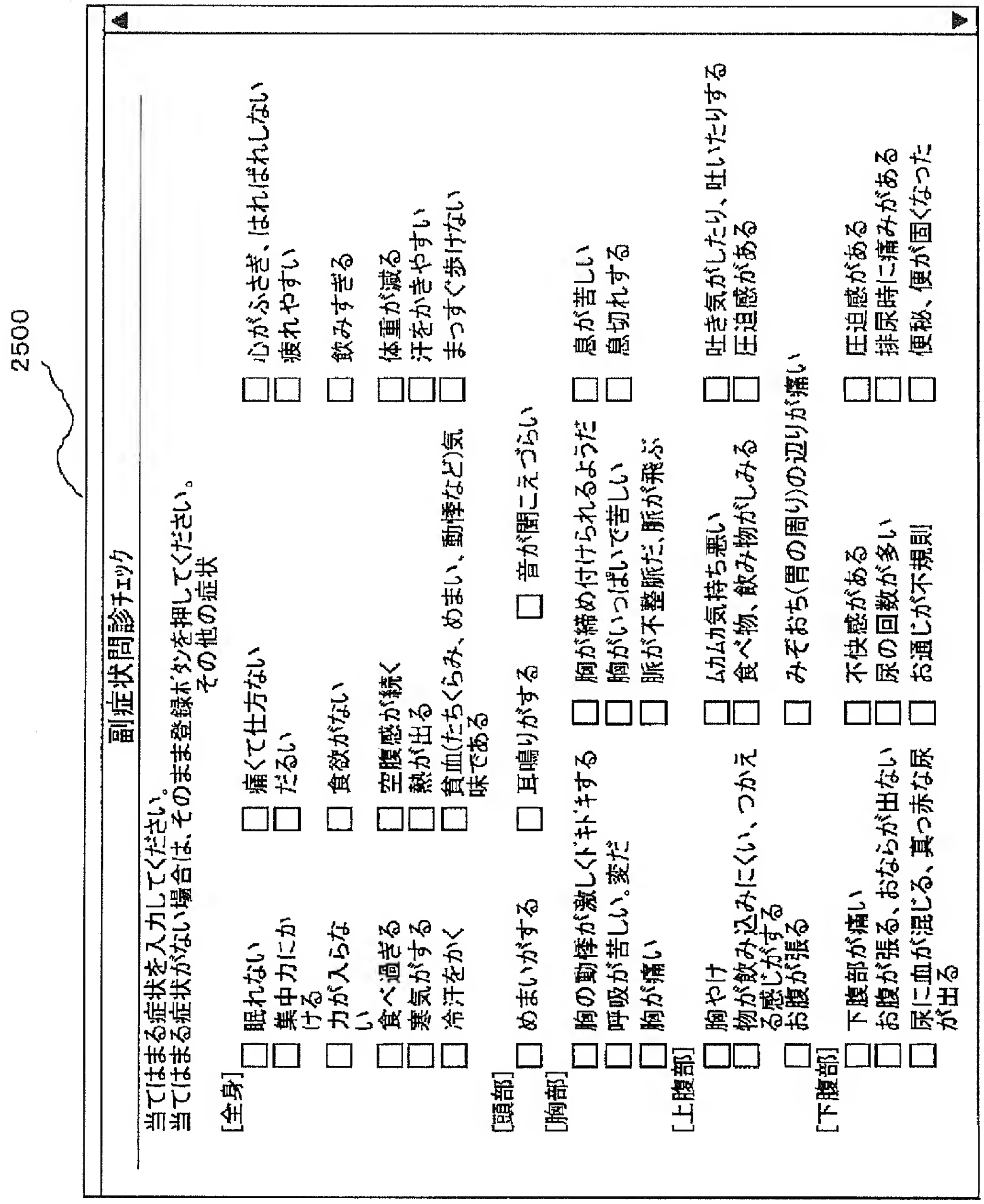
[Drawing 22]



[Drawing 24]


2400
自覚症状問診ﾁｪｯｸ
当てはまる症状を入力してください。
当てはまる症状がない場合は、そのまま登録ﾎﾞﾀﾝを押してください。
頭痛
どんな
ｽﾞｷｽﾞｷ痛む
頭が重く、締め付けられる感じがする
始まったとき
突然なった
除々になった
慢性的
いつからかわからない
その後
絶え間なく痛い
痛くなったり、痛くなくなったりを繰り返す
突然痛くなって、突然治る
どんどん痛みが増している
どんな時に悪くなるか
肉体疲労後に痛くなる
精神疲労後に痛くなる
睡眠中に痛くなる
早朝に痛くなる
ｱﾙｺｰﾙ摂取後に痛くなる
くしゃみや咳をするとより痛くなる
頭や体を動かすと痛くなる
月経の前後や月経中に痛くなる
詳しい場所
頭全体
頭の片側
後頭部
痛みが片側の目のまわりから始まる
登録
ｸﾘｱ

[Drawing 25]

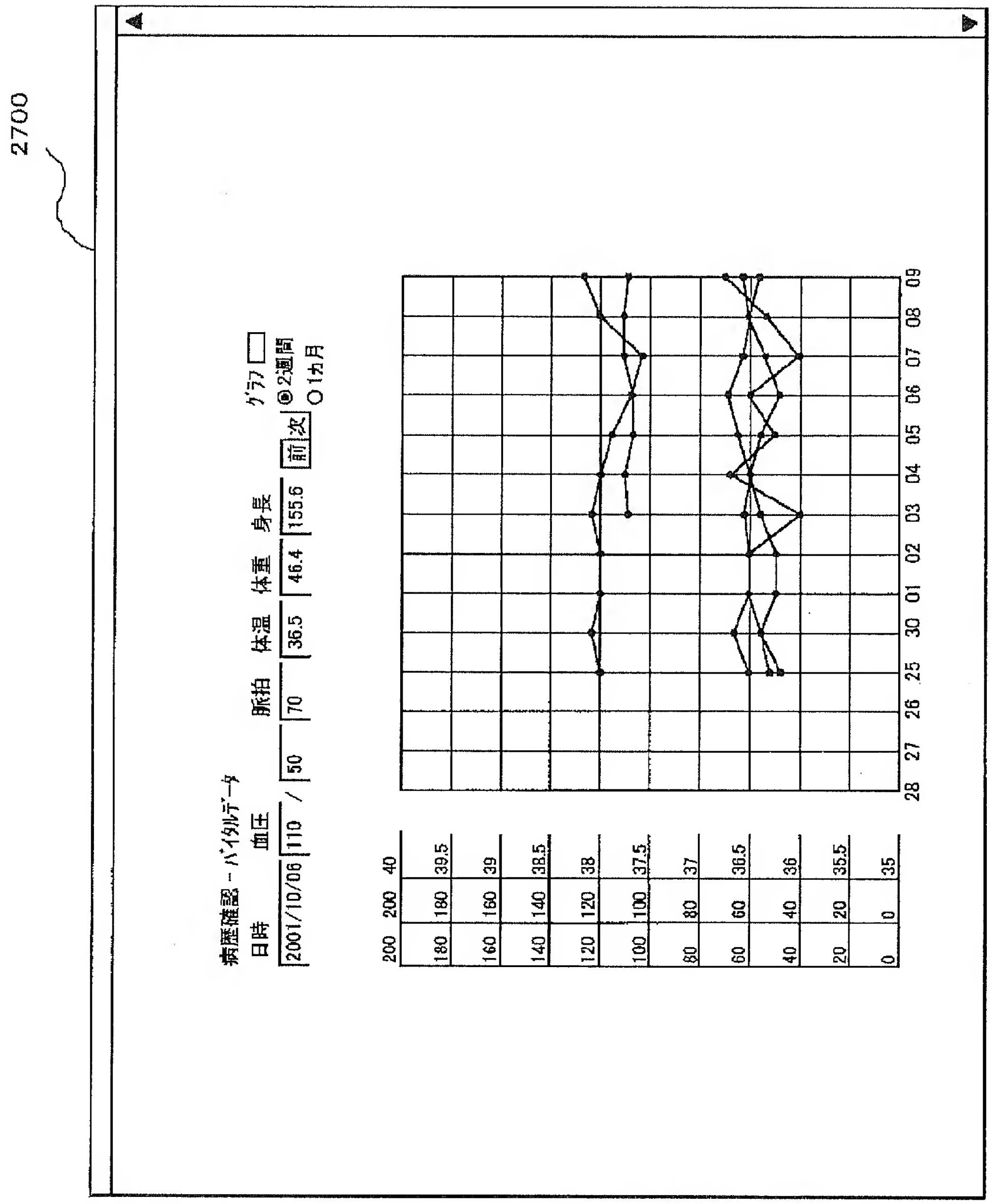

2500
副症状問診チェック
当てはまる症状を入力してください。
当てはまる症状がない場合は、そのまま登録ボタンを押してください。
その他の症状
[全身]
眠れない
痛くて仕方ない
心がふさぎ、はればれしない
集中力にかける
だるい
疲れやすい
力が入らない
食欲がない
飲みすぎる
食べ過ぎる
空腹感が続く
体重が減る
寒気がする
熱が出る
汗をかきやすい
冷汗をかく
貧血(たちくらみ、めまい、動悸など)気味である
まっすぐ歩けない
[頭部]
めまいがする
耳鳴りがする
音が聞こえづらい
[胸部]
胸の動悸が激しくドキドキする
胸が締め付けられるようだ
息が苦しい
呼吸が苦しい。変だ
胸がいっぱいで苦しい
息切れする
胸が痛い
脈が不整脈だ、脈が飛ぶ
[上腹部]
胸やけ
ムカムカ気持ち悪い
吐き気がしたり、吐いたりする
物が飲み込みにくい、つかえる感じがする
食べ物、飲み物がしみる
圧迫感がある
お腹が張る
みぞおち(胃の周り)の辺りが痛い
[下腹部]
下腹部が痛い
不快感がある
圧迫感がある
お腹が張る、おならが出ない
尿の回数が多い
排尿時に痛みがある
尿に血が混じる、真っ赤な尿が出る
お通じが不規則
便秘、便が固くなった

[Drawing 26]

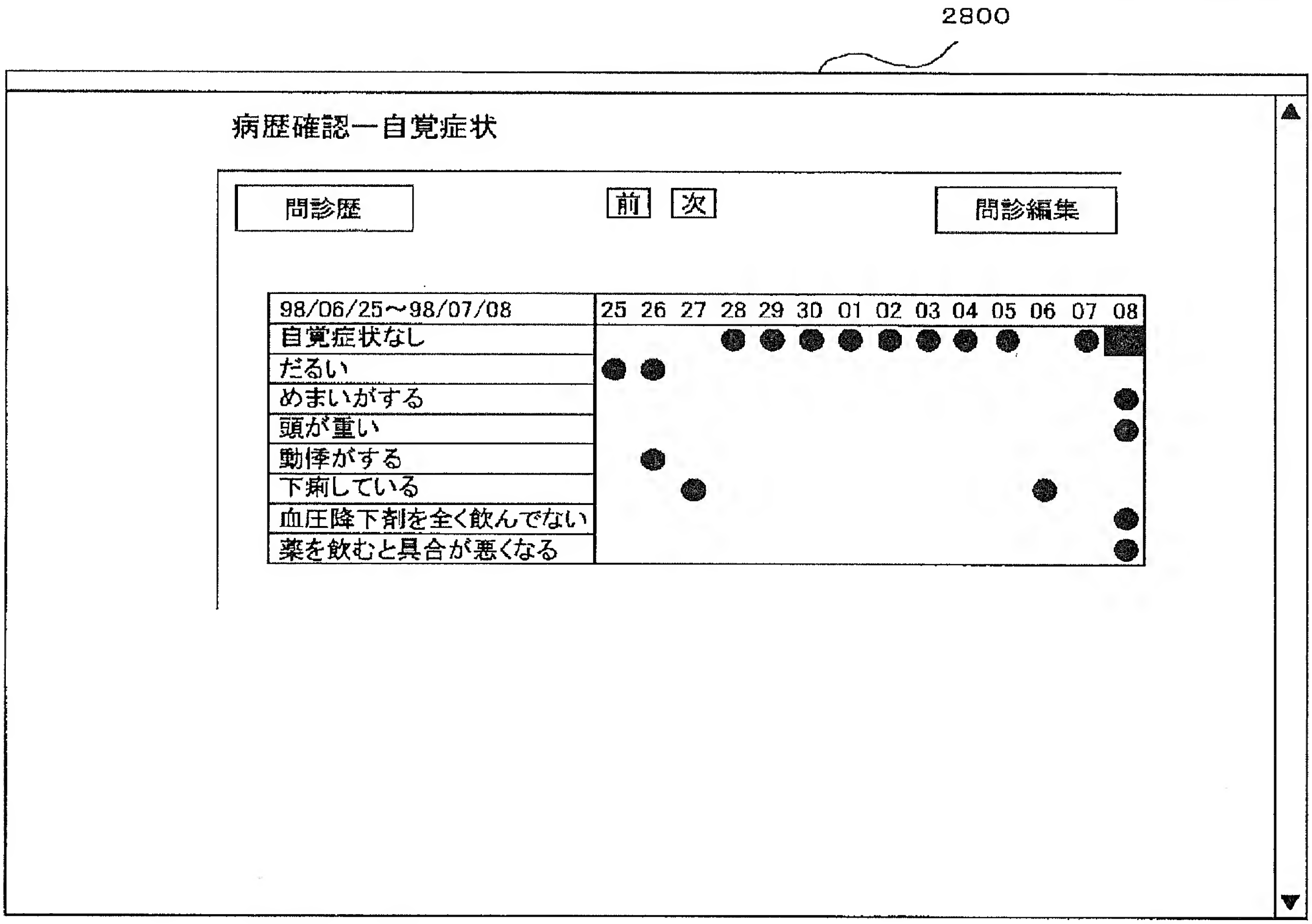
2600

だるい・無力状態	熱	貧血	その他の症状
眠れない		めまいがする	空腹感が続く
集中力にかける	徐々に熱が上昇した	徐々になった	頭が重く、締め付けられる感じがする
汗をかきやすい	1日中熱がある	動いたときになる	胸が痛い
			ﾑｶﾑｶ気持ち悪い
			みぞおち(胃の周り)の辺りが痛い

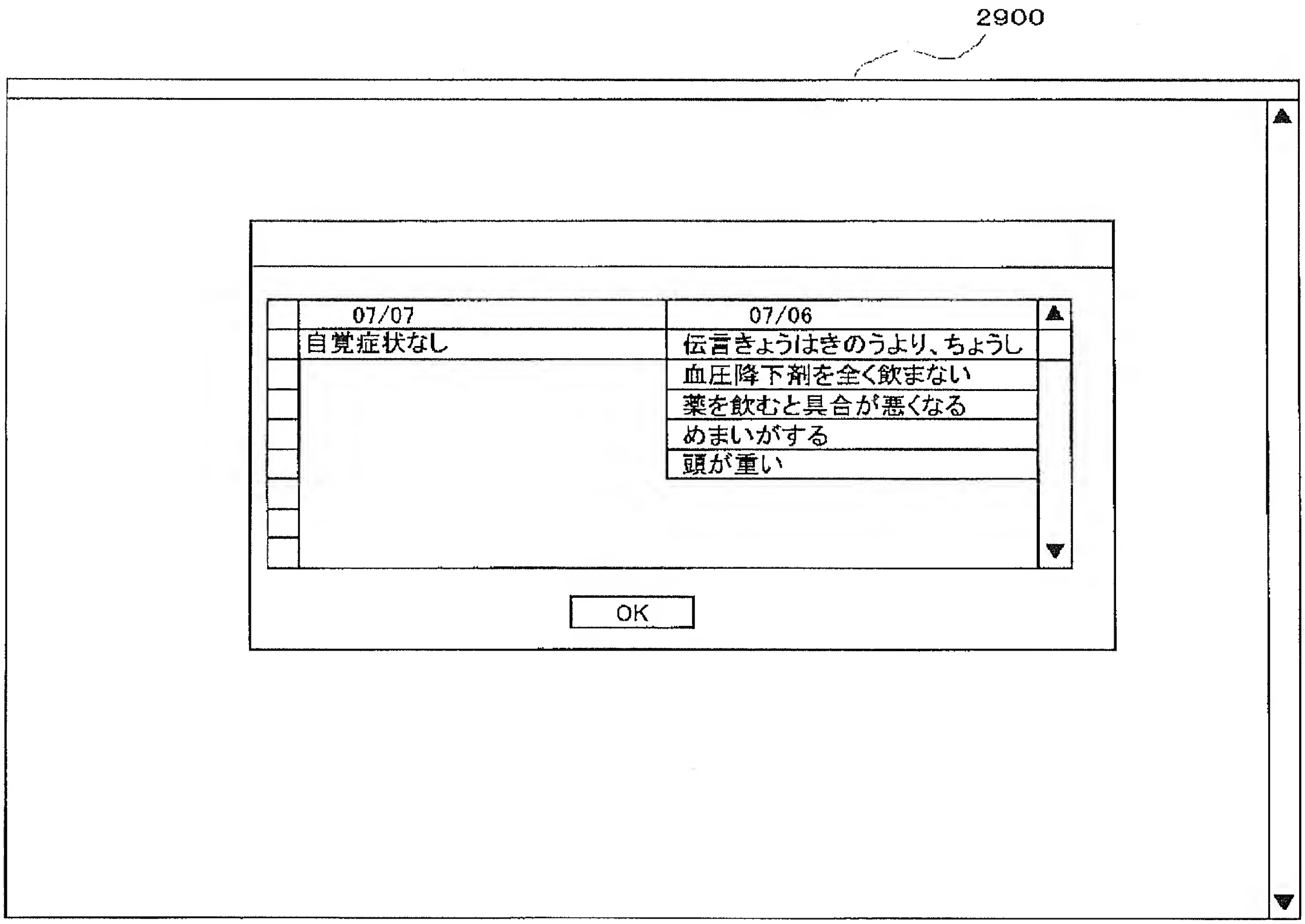
[Drawing 27]


2700
病歴確認 - バイタルデータ
日時
2001/10/06
血圧
110 / 50
脈拍
70
体温
36.5
体重
46.4
身長
155.6
前
次
グラフ
2週間
1ヵ月

[Drawing 28]


2800
病歴確認ー自覚症状
問診歴
前
次
問診編集
98/06/25～98/07/08
25 26 27 28 29 30 01 02 03 04 05 06 07 08
自覚症状なし
だるい
めまいがする
頭が重い
動悸がする
下痢している
血圧降下剤を全く飲んでない
薬を飲むと具合が悪くなる

[Drawing 29]


2900
07/07
07/06
自覚症状なし
伝言きょうはきのうより、ちょうし
血圧降下剤を全く飲まない
薬を飲むと具合が悪くなる
めまいがする
頭が重い
OK